



South Carolina Department of Health
and Environmental Control

Division of Procurement Services

Invitation for Bid

Solicitation No.: IFB-35746-4/21/09-EMW

Date Issued: 3/24/09

Procurement Officer: E. Madison Winslow

Phone No.: 803-898-3487

E-mail Address: winsloem@dhec.sc.gov

DESCRIPTION: Corrective action for petroleum releases – UST Permit Number 05576, Lancaster, SC

The Term "Offer" Means Your "Bid" or "Proposal"

SUBMIT OFFER BY (Opening Date/Time): April 21, 2009/2:30 pm ET

See provision entitled "Deadline for Submission of Offer"

NUMBER OF COPIES TO BE SUBMITTED: **One (1) original and**

QUESTIONS MUST BE RECEIVED BY: April 7, 2009/2:30 pm ET

See provision entitled "Questions from Offerors"

SUBMIT YOUR SEALED OFFER TO EITHER OF THE FOLLOWING ADDRESSES:

MAILING ADDRESS:	PHYSICAL ADDRESS:
SC DHEC Division of Procurement Services Bureau of Business Management 2600 Bull Street Columbia, S.C. 29201	SC DHEC Division of Procurement Services Bureau of Business Management 2600 Bull Street, Room 1200 – Aycock Bldg. Columbia, S. C. 29201

Offers Must Be Sealed: See provision entitled "Submitting Your Offer"

AWARD &
AMENDMENTS

Award will be posted on **April 28, 2009**. The award, this solicitation, and any amendments will be posted at the following web address: <http://www.scdhec.net/procurement>.

You must submit a signed copy of this form with your offer. By submitting a bid or proposal, you agree to be bound by the terms of the solicitation. You agree to hold your offer open for a minimum of thirty (30) calendar days after the opening date.

NAME OF OFFEROR

(Full legal name of business submitting the offer)

OFFEROR'S TYPE OF ENTITY:

(Check one)

AUTHORIZED SIGNATURE

(Person signing must be authorized to submit binding offer to enter contract on behalf of Offeror named above.)

TITLE

(Business title of person signing above)

PRINTED NAME

(Printed name of person signing above)

DATE

☐ Sole Proprietorship

☐ Partnership

☐ Corporation (tax-exempt)

☐ Corporate entity (not tax-exempt)

☐ Government entity (federal, state, or local)

☐ Other

(See provision entitled "Signing Your Offer")

Instructions regarding offeror's name: Any award issued will be issued to, and the contract will be formed with, the entity identified as the offeror above. An offer may be submitted by only one legal entity. The entity named as the offeror must be a single and distinct legal entity. Do not use the name of a branch office or a division of a larger entity if the branch or division is not a separate legal entity, *i.e.*, a separate corporation, partnership, sole proprietorship, etc.

OFFEROR'S HOME OFFICE ADDRESS

(Address for the offeror's principal place of business)

CITY

STATE

ZIP CODE

PHONE

FACSIMILE

E-MAIL

STATE OF INCORPORATION

(If offeror is a corporation, identify the state of Incorporation)

TAXPAYER IDENTIFICATION NO.

(See provision entitled Taxpayer Identification Number)

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PAGE TWO

(Return Page Two with Your Offer)

HOME OFFICE ADDRESS (Address for offeror's home office / principal place of business)	NOTICE ADDRESS (Address to which all procurement and contract related notices should be sent.) (See "Notice" clause)								
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Area Code</td> <td style="width:20%;">Number</td> <td style="width:20%;">Extension</td> <td style="width:45%;">Facsimile</td> </tr> <tr> <td colspan="4" style="padding: 5px;">E-mail Address</td> </tr> </table>	Area Code	Number	Extension	Facsimile	E-mail Address			
Area Code	Number	Extension	Facsimile						
E-mail Address									

PAYMENT ADDRESS (Address to which payments will be sent.) (See "Payment" clause)	ORDER ADDRESS (Address to which purchase orders will be sent) (See "Purchase Orders" and "Contract Documents" clauses)
† Payment Address same as Home Office Address † Payment Address same as Notice Address (check only one)	† Order Address same as Home Office Address † Order Address same as Notice Address (check only one)

ACKNOWLEDGMENT OF AMENDMENTS Offerors acknowledges receipt of amendments by indicating amendment number and its date of issue. See "Amendments to Solicitation" Provision	Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date

DISCOUNT FOR PROMPT PAYMENT See "Discount for Prompt Payment" clause	10 Calendar Days (%)	20 Calendar Days (%)	30 Calendar Days (%)	_____ Calendar Days (%)
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PREFERENCES – SC RESIDENT VENDOR PREFERENCE (June 2005): Section 11-35-1524 provides a preference for offerors that qualify as a resident vendor. A resident vendor is an offeror that (a) is authorized to transact business within South Carolina, (b) maintains an office* in South Carolina, (c) either (1) maintains a minimum \$10,000.00 representative inventory at the time of the solicitation, or (2) is a manufacturer which is headquartered and has at least a ten million dollar payroll in South Carolina, and the product is made or processed from raw materials into a finished end-product by such manufacturer or an affiliate (as defined in section 1563 of the Internal Revenue Code) of such manufacturer, and (d) has paid all assessed taxes. If applicable, preference will be applied as required by law.	OFFERORS REQUESTING THIS PREFERENCE MUST INITIAL HERE. _____ *ADDRESS AND PHONE OF IN-STATE OFFICE † In-State Office Address same as Home Office Address † In-State Office Address same as Notice Address <div align="right">(CHECK ONLY ONE)</div>
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PREFERENCES – SC/US END-PRODUCT (June 2005): Section 11-35-1524 provides a preference to vendors offering South Carolina end-products or US end-products, if those products are made, manufactured, or grown in SC or the US, respectively. An end-product is the item identified for acquisition in this solicitation, including all component parts in final form and ready for the use intended. The terms "made," "manufactured," and "grown" are defined by Section 11-35-1524(B). By signing your offer and checking the appropriate space(s) provided and identified on the bid schedule, offeror certifies that the end-product(s) is either made, manufactured or grown in South Carolina, or other states of the United States, as applicable. Preference will be applied as required by law.	IF THIS PREFERENCE APPLIES TO THIS PROCUREMENT, PART VII (BIDDING SCHEDULE) WILL INCLUDE A PLACE TO CLAIM THE PREFERENCE. OFFERORS REQUESTING THIS PREFERENCE MUST CHECK THE APPROPRIATE SPACES ON THE BIDDING SCHEDULE.
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I. SCOPE OF WORK

A. DEFINITIONS:

For the purposes of this contract the following terms and definitions shall apply:

1. Chemicals of Concern (CoC): Specific petroleum constituents that are identified for monitoring and corrective action.
2. Corrective Action Completion Time: The time in months, submitted by the Contractor, necessary to reduce CoC concentrations to below SSTLs, verify attainment of the goals, and remove and/or properly abandon assessment and corrective action equipment and components (wells, treatment lines, etc.).
3. Corrective Action Plan (CAP): A document outlining and detailing proposed corrective actions containing a timetable consistent with the Corrective Action Completion Time submitted by the contractor.
4. Corrective Action System Startup Date: The date on which the Contractor initiates full time treatment operations or initiates injection into or extraction from the subsurface.
5. Free-Phase Product (FPP): Petroleum lighter than water non-aqueous phase liquid (LNAPL) identified for monitoring and corrective action.
6. Liquidated Damages: Costs over and above the pre-approved amount that are incurred by the Department in order to complete the corrective action as specified in this document in the event of a breach of contract by the contractor resulting in termination of the contract.
7. Site Incentive Period: The period of time in months established by the SCDHEC during which the contractor must achieve the corrective action goals (see Contract Item II.A.9.c) in order to qualify for the Early Completion Incentive.

B. SOLICITATION STATEMENT

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control (SCDHEC) is seeking services to perform active corrective action of a petroleum release at a regulated underground storage tank site in accordance with defined remediation goals. *The objective is to prevent significant further migration of FPP and CoC, to remove measurable (0.01') thicknesses of FPP, and to reduce the concentrations of CoC in the soil and groundwater to at or below site-specific target levels (SSTLs) established by SCDHEC.* All offerors must be South Carolina Certified Class I Site Rehabilitation Contractors.

C. SCHEDULE OF DELIVERABLES

The following table summarizes the deadlines for deliverables associated with this contract:

DELIVERABLE DUE	DEADLINE
Questions	By 5:00 p.m. ET, 4/7/09
Sealed Bids	By 2:30 p.m. ET, 4/21/09
Corrective Action Plan	30 days from date of award
Initial Monitoring Report	45 days from date of award
CAP Implementation	30 days from Notice to Proceed
System Start Up	15 days from receipt of Permit to Operate and CAP Notice to Proceed

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Notify Project Manager of Gauging	At least 2 weeks prior to gauging event
Corrective Action System Evaluation Report	Quarterly from date of system start up
Abandon and/or Remove Assessment and Corrective Action Equipment and Components	Within 60 days from notice by SCDHEC

D. SITE-SPECIFIC INFORMATION

The scope of work defined in this solicitation is to be implemented at Perry's North Main Texaco, 202 N. Main St., Lancaster, SC, UST Permit # 05576 for the release reported on March 11, 2002.

II. CONTRACTUAL REQUIREMENTS

A. GENERAL REQUIREMENTS

1. **CONTRACT PERIOD:** The contract will be effective from date of award until the corrective action is complete as described in this contract.
2. **EQUAL OPPORTUNITY EMPLOYMENT:** Contractor must agree to make positive efforts to employ women, other minorities, and minority-owned businesses.
3. **AMENDMENTS:** All amendments to this solicitation shall be in writing from the SCDHEC Procurement Officer indicated on page one of this solicitation. SCDHEC shall not be legally bound by any amendment, interpretation or settlement that is not in writing.
4. **RESTRICTION . . . THE ONLY OFFICIAL CONTACT PERSON AT SCDHEC DURING THE SOLICITATION AND AWARD OF THIS CONTRACT IS THE PROCUREMENT OFFICER INDICATED ON PAGE 1 OF THIS SOLICITATION. OFFERORS ARE NOT TO CONTACT ANY OTHER SCDHEC PERSONNEL LOCATED OUTSIDE THE BUREAU OF BUSINESS MANAGEMENT.**
5. **AWARD:** Award will be made to a South Carolina Certified UST Site Rehabilitation Contractor based on the Corrective Action Cost (Contract Item IV.B.3), method(s), and Corrective Action Completion Time for the site listed. For a bid to be considered responsive, the proposed implementation schedule and the proposed remediation technology(ies) or method(s) for active corrective action to achieve the remediation goals must be protective of public health and the environment and be eligible for permitting by SCDHEC. The total cost, methods, and time to complete the contract must be advantageous to the State of South Carolina.
 - a. The Corrective Action Completion Time shall be determined by the offeror and entered into the Corrective Action Solicitation Response (Contract Item IV.B.)
 - 1) Time is of the essence in completing the site work to restore the aquifers and protect human health and the environment. Therefore, offerors are encouraged to strive for efficient remediation methods and to propose the shortest practical time for the completion of this site.

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- 2) Award of the contract, if made, will be made to the responsible and qualified offeror who submits a responsive bid with the lowest Corrective Action Cost. In the event that two or more bidders submit the lowest Corrective Action Cost, the award, if made, will be decided in accordance with the Tie Bids procedure in Section B. (6) of the Underground Storage Tank Environmental Remediation Procedures. SCDHEC reserves the right to request additional information to clarify the feasibility of the proposed remediation technology(ies) or method(s) for corrective action included in the bid.
- 3) The contractor shall enter the number of months in the space provided in the Corrective Action Solicitation Response.
6. **REASONABLE COST:** SCDHEC reserves the right to reject any and all bids that appear to be above customary and reasonable cost for the same scope of work in a similar geologic setting, that propose technologies that cannot be permitted in South Carolina, or that propose time frames for cleanup that are not protective of human health or the environment. SCDHEC reserves the right to request additional information to clarify the feasibility of the proposed remediation technology(ies) or method(s) for corrective action included in the bid.
7. **SITE WORK VERIFICATION:** The contractor will be required to treat the area of concern shown in the Appendix. Verification that interim corrective action goals have been achieved will be based upon gauging results from all wells and sampling points listed in the Appendix, and upon sampling results from SSTL wells and sampling point listed in the Appendix. Verification that final corrective action goals have been achieved will be based upon sampling results from all wells and sampling points listed in the Appendix, and additional verification wells to be installed at locations and depths designated by SCDHEC (See Contract Item III.B.10 for more details). It is understood that seasonal fluctuations in FPP thicknesses and CoC concentrations will occur over time. It is the intent of this corrective action to prevent further degradation of the aquifer(s) by continued migration of FPP and CoC into areas not previously impacted. If the corrective action allows FPP and CoC to migrate and impact areas beyond the area of concern, the Contractor will be responsible for completing assessment activities necessary to re-define the area of concern and for providing amendments to their Corrective Action Plan addressing the additional impacted area(s).
8. **REPORTS:** Deliver one electronic copy of each plan or report to: SCDHEC, Bureau of Land and Waste Management, UST Program, 2600 Bull Street, Columbia, SC 29201. The copy should be submitted on compact disc (CD) containing entire report in Personal Data Format (PDF) and all data tables in MS Excel or comparable format. A copy of each plan or report must be delivered to each party on the Distribution List included in the Appendix. The copies may be paper or electronic as agreed upon by the affected party and the Contractor. Based upon permitting and other requirements, additional copies of plans or reports may be required by the SCDHEC. The SCDHEC will notify the Contractor of the exact number of copies of each document to be submitted.
9. **INVOICING:** Invoices will be submitted to: SCDHEC, Bureau of Land and Waste Management, UST Program, ATTN: Financial Section, 2600 Bull Street, Columbia, SC 29201, using the SCDHEC Corrective Action (CA) Invoice form. The initial invoice must be received at the above address within four months of CAP approval or funds will be uncommitted as required by

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the Section 44-2-40(B) of the SUPERB Act. If funds are uncommitted, the submitted invoice will be held until funding is available. **Payment will only be made for achieving corrective action goals as specified below. No partial payments will be made once corrective action is initiated, except as outlined in Contract Item III.B.3.** Payment to the contractor will be on a pay-for-performance basis as follows:

- a. Payment of 40% of the total Corrective Action Cost will be made within 90 days following receipt of an invoice and documentation that the contractor has completed the Corrective Action System Startup. All corrective action activities must be as described in the CAP and are subject to the limitations of Section 44-2-40 of the SUPERB Act. The implementation should be documented in the first corrective action system evaluation (CASE) report. The first CASE report must include the construction logs for all treatment/recovery wells installed in accordance with the CAP.
- b. Payment of 40% of the total Corrective Action Cost will be made based on achieving interim FPP thickness reduction goals as verified in all wells and sampling points listed in the Appendix, and on achieving CoC concentration reduction goals as verified in the SSTL wells and SSTL sampling points listed in the Appendix. Payments will be made upon receipt of invoices and documentation that the contractor has achieved interim goals of FPP removal followed by 60, 90 and 100% reduction of total CoC concentration above the SSTLs **by the implementation of corrective action.** The FPP thicknesses, CoC concentrations, and SSTLs are listed in the Appendix.
 - 1) The interim FPP removal goal will be achieved when the FPP thickness does not exceed 0.01' in all wells and sampling points listed in the Appendix, and at any point in the area of concern. Payment of 10% of the total Corrective Action Cost will be made upon verification that the interim FPP removal goal has been achieved. **Achievement of this interim goal must be confirmed by gauging conducted by SCDHEC. The gauging will be conducted a minimum of one month after the conclusion of FPP removal activities.**
 - 2) The first interim concentration reduction goal will be achieved when 60% of the total CoC concentration above SSTLs in the SSTL wells and SSTL sampling points listed in the Appendix is removed. The following formula will be used to calculate the percent total concentration reduction: $\frac{\text{total concentration above SSTLs from initial sampling} - \text{total concentration above SSTLs from subsequent sampling}}{\text{total concentration above SSTLs from initial sampling}}$. Payment of 10% of the total Corrective Action Cost will be made upon confirmation by CASE report or upon verification (see Contract Item III.B.10 for the method of verification) that at least 60% of the total CoC concentration above SSTLs is removed.

The following is an example to demonstrate the CoC concentration reduction calculation:

Well		Benzene	Toluene	Ethylbenzene	Xylene	MTBE	Naphthalene	Conc>SSTL
MW-1	Initial ^A	7,500	4,000	2,000	15,000	3,000	1,000	^A
	SSTL ^B	10	2,000	1,400	10,000	80	50	^B
	Initial > SSTL ^C	7,490	2,000	600	5,000	2,920	950	18,960 ^C

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	Subsequent ^D	3,000	1,000	900	13,000	2,000	5	^D
	SSTL ^E	10	2,000	1,400	10,000	80	50	^E
	Subsequent > SSTL ^F	2,990	0	0	3,000	1,920	0	7,910 ^F
MW-4	Initial ^G	150	400	50	250	300	25	^G
	SSTL ^H	5	400	50	250	40	25	^H
	Initial > SSTL ^I	145	0	0	0	260	0	405 ^I
	Subsequent ^J	100	100	1	1	100	1	^J
	SSTL ^K	5	400	50	250	40	25	^K
	Subsequent > SSTL ^L	95	0	0	0	60	0	155 ^L
Totals	Initial > SSTL ^M	(sum of initial concentration above SSTL for all wells) (C+I)						19,365 ^M
	Subsequent > SSTL ^N	(sum of subsequent concentration above SSTL for all wells) (F+L)						8,065 ^N

Notes: If subsequent sampling indicates a CoC concentration at or below the SSTL and/or a CoC concentration at BDL but the reporting limit is at or below the SSTL value for any constituent, the value for the concentration reduction will be 0 (no negative numbers). If subsequent sampling indicates a CoC concentration at BDL but the reporting limit is above the SSTL, the value for any constituent will be the analytical reporting limit.

$$\text{CoC Concentration Reduction} = \frac{(M-N)}{(M)} = \frac{(19,365-8,065)}{(19,365)} = 0.5835 * 100 = 58.35\%$$

- 2) The second interim concentration reduction goal will be achieved when 90% of the total CoC concentration above SSTLs in the SSTL wells and SSTL sampling points listed in the Appendix is removed. The formula outlined in Contract Item II.A.9.B.1 will be used. Payment of 10% of the total Corrective Action Cost will be made upon verification (see Contract Item III.B.10 for the method of verification) that at least 90% of the total CoC concentration above SSTLs has been removed. **Achievement of this interim goal must be confirmed by split sampling conducted with SCDHEC.**
- 3) The third interim concentration reduction goal will be achieved when 100% of the total CoC concentration above SSTLs in the SSTL wells and SSTL sampling points listed in the Appendix is removed. The formula outlined in Contract Item II.A.9.B.1 will be used. Payment of 10% of the total Corrective Action Cost will be made upon verification (see Contract Item III.B.10 for the method of verification) that 100% of the total CoC concentration above SSTLs. **Achievement of this interim goal must be confirmed by split sampling conducted with SCDHEC.**
- c. The final 20% of the total Corrective Action Cost will be paid upon receipt of an invoice and verification that CoC concentrations do not exceed SSTLs in all wells and sampling points listed in the Appendix, in any verification wells, and at any point in the area of concern, and that all assessment and corrective action components (e.g., wells, trenches, etc.) have been removed from the site and/or properly abandoned. Verification that the corrective action goals have been achieved will be based upon sampling of all wells and sampling points listed in the Appendix and additional verification wells to be installed at locations and depths designated

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by SCDHEC (see Contract Item III.B.10 for more details).

SCDHEC will collect split or duplicate samples from wells and sampling points in the area of concern to confirm that corrective action goals have been achieved and maintained.

10. NOTIFICATION FOR FAILURE TO PERFORM: If the contractor fails during the course of this contract to make reasonable progress toward the cleanup goals in accordance with the Corrective Action Completion Time as included in the Corrective Action Plan, or fails to meet any requirement or specification of corrective action as outlined in this document without prior notification to SCDHEC of circumstances legitimately beyond their control, SCDHEC will, on the first occurrence, notify the contractor by certified letter and meet with them to establish a timetable and remedy for the deficiency (ies). If the contractor corrects the deficiency (ies) within the agreed to period of time, the contract award will continue. If the contractor does not correct the deficiency (ies) within the agreed to period of time, the contractor will be in breach of contract and the contract award may be voided by SCDHEC. On the second occurrence, SCDHEC will notify the contractor by certified letter and meet with them to establish a timetable and remedy for the deficiency (ies). If the contractor corrects the deficiency (ies) within the agreed to period of time, the contract award will continue. If the contractor does not correct the deficiency (ies) within the agreed period of time, the contractor will be in breach of contract and the contract award may be voided by SCDHEC. **If the contractor fails on a third occasion during the course of this contract to meet any requirement or specification established in this document, the contractor will be in breach of contract and the contract award will be voided by SCDHEC.** SCDHEC will notify the contractor by certified letter that the contract award has been voided and will initiate appropriate actions in accordance with Contract Item II.A.12. **In the event that the contract award is voided due to a breach of contract as outlined above, no further payment of any invoices will be made and the contractor will incur a one-year suspension from bidding on any UST-related solicitations in South Carolina and may be subject to suspension or decertification in accordance with the SUPERB Site Rehabilitation and Fund Access Regulations, R.61-98.**
11. CANCELLATION: The accepted Corrective Action Cost will be final and will not be increased or cancelled for any reason (e.g., unanticipated iron fouling of a system, wells clogging because of biological activity or sediments, damage by lightning, increased subcontractor costs, loss of utilities, modification to the system to meet the remediation goals, etc.) with the exception of unforeseen subsurface conditions as determined solely at the discretion of SCDHEC or identification of additional CoC from a release occurring after the award of this contract that adversely impacts the corrective action. Contractor-owned items used on-site for the contract that are damaged or destroyed by common acts of nature, improper maintenance or handling, theft or vandalism will not be replaced or reimbursed by the SUPERB Account. **Payment will only be made for achieving the corrective action goals as specified in this document. No interim or partial payments will be made once corrective action is initiated, except as outlined in Contract Item III.B.3. Once corrective action has been initiated under this contract, in the event of a cancellation due to any of the conditions described in this Contract Item, final payment will be a percentage of the Corrective Action Cost equal to the actual percent reduction of the total CoC concentration based upon the last sampling results from all wells and sampling points listed in the Appendix less the amount previously paid.** The contractor cannot delay progress or suspend corrective action activities at the site based upon a claim of a suspected new petroleum release from the UST system. Unless directed otherwise by SCDHEC,

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the contractor must continue to perform corrective action activities under this contract during any period of time during which a new petroleum release from the UST system is being investigated. The contractor must clearly demonstrate sufficient evidence of the release in the form of analytical test results or other demonstrative evidence to SCDHEC. The determination that a new petroleum release from the UST system has occurred that post-dates the contract award, and that adversely impacts corrective action at the site, is the sole discretion of SCDHEC.

12. **LIQUIDATED DAMAGES:** In the event that the contract award is voided for cause as outlined in Contract Item II.A.10, the contractor will be required to pay liquidated damages equal to the costs that are incurred by SCDHEC over and above the Corrective Action Cost in order to complete the corrective action as specified in this contract. The amount of liquidated damages will be computed by subtracting the unpaid balance of the Corrective Action Cost from the completion cost of the corrective action as determined by re-bid of the corrective action contract. The contractor will be notified by certified mail of the amount of liquidated damages within 15 business days following opening of the re-bid. The contractor will have 60 days from the date of notification to make payment of the amount. In the event that the contractor is unable or unwilling to pay the liquidated damages, SCDHEC will initiate decertification of the contractor in accordance with Section V.A.4. of the SUPERB Site Rehabilitation and Fund Access Regulations, R.61-98, and may initiate legal action to secure payment of the damages.

A. SPECIFIC REQUIREMENTS

1. **CONTRACT SCOPE:** This contract is for corrective action at one site in South Carolina.
2. **INQUIRIES:** Questions or requests for information must be submitted in writing and received by 5:00 P.M. on the date specified in Contract Item I.C. After this date, no further questions will be addressed. A written response will be provided to all requestors of the solicitation. The questions may be faxed to E. Madison Winslow in the SCDHEC Bureau of Business Management at (803) 898-3505.
3. **PROVISION FOR EARLY COMPLETION INCENTIVE:** SCDHEC will pay the contractor an incentive of 10% of the Corrective Action Cost for early completion, subject to the conditions set forth in this provision. Payment will be made if the corrective action goals have been met in accordance with the terms of this contract prior to the end of the Site Incentive Period, as established by SCDHEC, and verified in accordance with Contract Item III.B.10.

The Site Incentive Period will commence on the Corrective Action System Startup Date. A month starts at 12:00 Midnight on the same day of the month as the Corrective Action System Startup Date and ends at Midnight preceding the same day of the following month. Months will be consecutively counted from the Corrective Action System Startup date. Following system startup, SCDHEC will provide the contractor notice in writing of the closing date of the Site Incentive Period.

The Site Incentive Period will not be adjusted for any reason, cause or circumstance whatsoever, regardless of fault, save and except in the instance of a catastrophic occurrence such as an event (e.g., hurricane) that results in a declared state of emergency and that directly and substantially affects the contractor's operations and results in unavoidable delay of the corrective action. In the event of a catastrophic occurrence on a specific site, SCDHEC shall determine the number of

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months reasonably necessary and due solely to such catastrophic occurrence to extend the Site Incentive Period. Any amendments to the Site Incentive Period will be provided to the contractor in writing.

The parties anticipate that routine delays may be caused by or arise from any number of events during the course of corrective action, including, but not limited to, work performed, work deleted, supplemental agreements, delays, disruptions, differing site conditions, utility conflicts, design changes or defects, extra work, right-of-way issues, permitting issues, actions of suppliers, subcontractors, or other contractors, actions by third parties, revision of the work scope by the contractor, weather, weekends, holidays, suspensions of the contractor's operations, or any other such events, forces or factors experienced in environmental work. Such delays or events, and their potential impacts on performance by the contractor are specifically contemplated and acknowledged by the contractor upon entering into this contract, and shall not affect the Site Incentive Period or incentives set forth in this contract item. Further, any and all costs or impacts whatsoever incurred by the contractor to complete corrective action within the Site Incentive Period, whether successful or not, shall be the sole responsibility of the contractor in every instance.

The contractor shall have no rights under the contract to make any claim arising out of this incentive provision except as is expressly set forth in this provision.

The Site Incentive Period for Perry's North Main Texaco, 202 N. Main St., Lancaster, SC, UST Permit # 05576 is 30 months.

4. **SITE-SPECIFIC DETAILS:** A brief technical summary, including location map and specifics of existing wells, is attached in the Appendix. The complete technical file will be available for review through the Freedom of Information (FOI) Office located at the Stern Building, 8911 Farrow Road, Columbia, SC. **Offerors are strongly encouraged to review the file(s) to ensure a complete understanding of corrective action requirements. The successful offeror will be responsible for all information in the technical file.** Appointment(s) to view the technical file may be scheduled on weekdays between the hours of 8:30 A.M. to 5:00 P.M. by calling the SCDHEC Freedom of Information Office at (803) 898-3882. **NOTE: FPP is present at this site. The application of corrective action technologies or natural fluctuations in the water table can mobilize FPP and cause possible appearance of FPP and/or elevated CoC concentrations in non-SSTL wells and sampling points.**

III. SPECIFICATIONS for CORRECTIVE ACTION

A. GENERAL SPECIFICATIONS

1. **SUBMITTALS:** All offerors must submit a completed Corrective Action Solicitation Response form (Contract Item IV). The response outlines in general terms the offeror's approach to achieve the corrective action goals.
2. **MINIMUM REQUIREMENTS:** Corrective action will be considered complete once the CoC concentrations are verified to be at or below SSTLs in the wells and sampling points listed in the Appendix and at any point in the area of concern, and all assessment and corrective action items are removed and/or abandoned. See Contract Item III.B.10 for the method of verification. Per

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R.61-98, all site rehabilitation activities associated with a UST release must be performed by a SCDHEC-certified Class I Site Rehabilitation Contractor. All corrective action plans and reports must be sealed by a Professional Engineer or Professional Geologist registered in the State of South Carolina. All engineering reports, drawings and plans must be sealed by a Professional Engineer registered in the State of South Carolina. All laboratory analysis for CoC must be performed by a SC-certified laboratory. All monitoring, verification, injection, or recovery wells must be installed and abandoned by a SC-certified well driller. The corrective action method(s) or technology (ies) will be designed to prevent vapors from entering onsite or adjacent structures. All applicable certification, training, permits, applications, and fees associated with well installation; injection, discharge, treatment, or transportation of groundwater, air, or soil; construction or operation of a corrective action system; and any other action requiring a permit are the responsibility of the contractor. Any required business or occupation licenses and occupational safety and health training (e.g., OSHA) as defined by the laws and regulations of the United States of America, the State of South Carolina, the county, or city are also the responsibility of the contractor. The terms and conditions of all applicable permits will be met. Any contaminated soil and construction debris, contaminated water, and FPP must be properly transported and disposed of, or treated at, an approved facility with prior approval from SCDHEC. Any costs for utilities construction and service (electric, telephone, sewer, etc.) required by the corrective action are the responsibility of the contractor.

B. PERFORMANCE REQUIREMENTS

1. **CORRECTIVE ACTION PLAN:** The contractor must complete and submit a detailed Corrective Action Plan within 30 days from the date the Purchase Order is issued by the Bureau of Business Management. Copies of the CAP must be distributed in accordance with Contract Item II.A.8. The CAP must define the method(s) and technology(ies) proposed to achieve corrective action goals in a manner that is consistent with the Corrective Action Completion Time submitted by the contractor. **The corrective action method(s) or technology(ies) will be designed to prevent vapors from entering onsite or adjacent structures.** It must be shown, by use of scientific models, computations, or discussion, how CoC concentrations will be reduced by each method and technology proposed. Any assumptions used in a model will be listed or shown, as well as appropriate references. **Note that the use of monitoring well(s) for injection, extraction, or FPP recovery purposes is not allowed.** Accordingly, the CAP may propose installation of additional recovery, sparge, compliance, or injection wells. General construction details will be included (e.g., install four additional recovery wells, construct a compliance point, install four air injection wells, excavate 3,000 cubic yards of impacted soils, etc.) as well as details of well abandonment and component removal. A corrective action timetable including demobilization and site restoration (Contract Items III.B. 10 and III.B.11) will be provided in the CAP.

SCDHEC will review the CAP and initiate a public notice period for a maximum of 30 days. The names and addresses of the owners of all impacted properties and all properties located adjacent to the impacted properties are provided in the Appendix. The contractor may be required to attend and provide input at one or more public meetings upon request by SCDHEC. Any CAP amendments and modifications resulting from the public notice must be submitted within 15 days of notification by SCDHEC. The CAP and any amendments or modifications must be sealed by a qualified Professional Geologist or Engineer registered in the State of South Carolina. The owner/operator and any other affected property owners will be consulted and will approve the location of the corrective action system. Any aboveground part of the system that is to remain

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on-site for longer than 30 contiguous days must be secured within a fenced area or building.

2. **PERMIT APPLICATIONS:** The contractor must complete and submit all applications for permits (injection, NPDES, BAQC modeling form, thermal treatment, construction, etc.) with the CAP. All submitted applications must comply with the requirements of the respective permitting program. Any required permit changes or corrections will be submitted within 15 days of notification by SCDHEC.
3. **INITIAL MONITORING REPORT:** Prior to Corrective Action System Startup, the contractor must submit to SCDHEC an initial monitoring report documenting FPP thicknesses, CoC concentrations, and potentiometric conditions in all wells and sampling points listed in the Appendix. The report will be due **within 45 days** after contract award. Copies of the initial monitoring report must be distributed in accordance with Section II.A.8.

Naturally occurring conditions may cause CoC concentrations to increase or decrease. For the purposes of this contract, the total CoC concentration for all wells and sampling points listed in the Appendix may reasonably increase up to 150% or decrease as much as 50%. If the total CoC concentration in all wells and sampling points listed in the Appendix increases more than 150% or decreases by more than 50% based on initial sampling, or if measurable FPP that has not been previously documented in any report is detected during the initial sampling event, the contractor may request in writing that the contract award be canceled. **If any of these conditions is identified during initial gauging, the contractor will notify SCDHEC within 2 days of identification and will submit written documentation within 5 days of notification.** The contractor will be reimbursed based on the following rate schedule:

Subcontractor costs*	Invoice + 15%
Personnel mobilization	\$125.00
Equipment mobilization	\$250.00
Groundwater sample collection	\$35.00 per well
Gauging FPP	\$30.00 per well
Contaminated water disposal	\$90.00 per drum
CAP preparation and associated costs	\$6,000.00

* Includes laboratory analysis, drilling, electrical, etc.

The rate schedule above does not apply in the event that the award is voided due to breach of contract in accordance with Contract Item II.A.10. If the contract is cancelled prior to Corrective Action System Startup due to any of the conditions described in this Contract Item, final payment will not exceed 40 percent of the Corrective Action Cost under any circumstance as no CoC reduction will have been accomplished by implementation of corrective action. If the corrective action system is started and treatment is performed, the contractor will be required to complete the contract unless conditions outlined in Contract Item II.A.11 are encountered.

4. **CORRECTIVE ACTION PLAN IMPLEMENTATION:** After CAP and all permit applications are reviewed and approved in accordance with the factors for determination set forth in R.61-92, Section 280.66, SCDHEC will issue a notice to proceed with CAP implementation. The contractor will implement the CAP within 30 days of receipt of the notice to proceed and any required permit to construct. If any problem with CAP implementation occurs, the contractor will notify SCDHEC within 24 hours of problem identification and will submit written documentation

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within 5 days of notification. Disruption to the normal business at the sites will be kept to a minimum. Upon completion of any required construction, SCDHEC will inspect the corrective action system and issue a permit to operate. The contractor will, at all times, keep the site free from waste materials and rubbish related to the corrective action. All contaminated soil and construction debris, contaminated water, and FPP generated on-site will be removed from the site promptly. Manifests documenting the proper disposal of the contaminated soil and construction debris, contaminated water, and FPP must be included in the appropriate report.

Implementation of the CAP is not authorized until the contractor receives a notice to proceed from SCDHEC. If premature implementation occurs, the SCDHEC will not reimburse related costs incurred by the contractor from the SUPERB Account, and the Corrective Action Cost will be reduced by the amount of the incurred costs. If the SCDHEC agrees with early implementation to better protect human health in an emergency and provides approval in writing, early implementation without any reduction to the Corrective Action Cost will be authorized.

5. **PROPERTY ACCESS:** The contractor will gain access to the adjacent properties to sample wells and sampling points, and to install any corrective action components, as required. The Contractor will be responsible for corrective action components installed on adjacent properties. Costs to repair or replace components of the corrective action damaged due to the actions of adjacent property owners cannot be paid by the SUPERB Account.
6. **SYSTEM START-UP:** The Contractor will initiate Corrective Action System Startup within 15 days of receipt of the permit to operate, if required. Corrective action as defined by the CAP will begin upon startup. **NOTE: FPP is present at this site. The application of corrective action technologies or natural fluctuations in the water table can mobilize FPP and cause possible appearance of FPP and/or elevated CoC concentrations in non-SSTL wells and sampling points.**
7. **REPORTING:** The contractor must complete and submit a Corrective Action System Evaluation (CASE) report on a quarterly schedule. The CASE report will be distributed in accordance with Contract Item II.A.8. The first quarterly CASE report is due within 120 days of Corrective Action System Startup and must include the following items:
 - a. A narrative portion that documents current site conditions, verification of system operation or CAP implementation, and system effectiveness in achieving the corrective action goals as outlined in the CAP. Any system down time and the associated reason(s) will be included in the report.
 - b. Conclusions and recommendations based on the reported data.
 - c. Groundwater laboratory analytical data for all wells and sampling points listed in the Appendix in the following format (additional parameters such as EDB and lead may be required):

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Analytical Data (µg/l)

Monitoring Well	Date	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Naphthalene
MW-1	7/15/97	145	200	146	1,000	170	47
	10/15/97	140	190	140	900	50	165
MW-2	7/15/97	580	800	300	1,000	60	20
	10/15/97	480	90	257	912	50	19

- d. Groundwater potentiometric data for all wells and sampling points listed in the Appendix in the following format:

Groundwater Data (feet)

Monitoring Well	Date	TOC Elevation	TOC to GW	TOC to FP	FP Thickness	GW Elevation
MW-1	7/15/97	98.0	17.54			80.46
	10/15/97	98.0	17.90			80.10
MW-2	7/15/97	100.0	20.50	20.47	0.03	79.50
	10/15/97	100.0	21.50	21.48	0.02	78.50

- e. A groundwater elevation contour map of the site based on current groundwater potentiometric data.
- f. A CoC map based upon current groundwater laboratory analytical data. The groundwater data should be adjacent to the relevant well or gauging point using the following format (additional parameters such as EDB and lead may be required):

MW- (NUMBER)
 Benzene (µg/l)
 Toluene (µg/l)
 Ethylbenzene (µg/l)
 Xylenes (µg/l)
 MTBE (µg/l)
 Naphthalene (µg/l)

- f. Calculation of CoC concentration reduction as outlined in Contract Item II.A.9.b.1).
- g. A copy of the SCDHEC approval letter and manifests for any contaminated soil, contaminated water, and FPP removed from the site for treatment and disposal.
- h. Any additional data required by permits (e.g., air analyses, wastewater effluent analyses and amounts, etc.). The data should be reported on a form or in a format specified in the permits, and attached to the CASE report as an addendum.

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All wells and sampling points listed in the Appendix will be sampled on a quarterly schedule and for 2 years following Corrective Action System Startup. **This protocol must be followed regardless of the operational status of the corrective action system.** Thereafter, the number of wells and points sampled may be reduced and/or the reporting interval lengthened upon clear demonstration of CoC concentration reduction, unless restricted by permit requirements. The contractor must submit a written request for a change in the protocol to SCDHEC. **Approval for any reduction in the number of wells and points to be sampled, or for any lengthening of the reporting interval, is at the sole discretion of SCDHEC.** SCDHEC may require data to be reported on a form or in a specific format. The contractor will be provided with the proper report forms and format prior to Corrective Action System Startup. The contractor will be notified of any revisions to the report forms or format 90 days prior to the due date for the next CASE report.

8. **SAMPLING:** The contractor must collect water samples from all wells and sampling points listed in the Appendix on a quarterly schedule. **Do not sample wells and sampling points containing measurable (0.01') FPP.** If measurable FPP is present, the thickness of product and depth to groundwater must be recorded to the nearest 0.01'. For wells where the water level is within the screened interval, groundwater samples should be collected without purging. For wells where the water level is not within the screened interval, purging must be conducted and pH, temperature, dissolved oxygen, and specific conductance measurements recorded. With the exception of water supply wells, most wells will not require purging. Purging is considered complete once three well volumes have been removed or the pH, temperature, dissolved oxygen, and specific conductance have equilibrated, yielding two consecutive readings with all parameters within $\pm 10\%$ variance, whichever comes first. Sampling logs should note all field measurements, as well as the location and type of each sample submitted for laboratory analysis. Each groundwater sample will be collected in accordance with established QA/QC protocol and submitted to a certified laboratory for analysis. The samples must be analyzed for the parameters listed in the Appendix.

Additional samples (air, groundwater, effluent, soil) required by permits must be collected in accordance with established QA/QC protocol and submitted to a certified laboratory for analysis. The samples will be analyzed for parameters stipulated in the permits. Sampling and analytical data for each sample (e.g., field sampling logs, chain of custody forms, certificates of analysis, and the lab certification number) will be included in the CASE report.

9. **DISPOSAL:** The contractor must properly dispose of all contaminated soil, contaminated water, and FPP generated during the corrective action. The owner/operator of the UST facility is considered to be the generator. Treatment and disposal must be conducted at SCDHEC-approved facility, and documented in the CASE reports.
10. **QUALITY ASSURANCE & VERIFICATION:** Once the third interim CoC concentration reduction goal (100%) has been maintained for a period of 30 days, the contractor must suspend corrective action and provide notification to SCDHEC. The corrective action suspension date will be considered the start of the two-quarter, post-corrective action verification period. The contractor will sample all wells and sampling points listed in the Appendix, and all verification wells on a quarterly schedule after the start of the verification period. **Do not sample wells and sampling points containing measurable (0.01') FPP.** If measurable FPP is present, the thickness of product and depth to groundwater must be recorded to the nearest 0.01'. The samples should be analyzed for the parameters listed in the Appendix, and also analyzed for following natural attenuation parameters:

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Analyte	Analytical Method*	Reporting Limit (µg/l)
Dissolved Oxygen	SM4500-O G	500
Ferrous Iron	SM3500-Fe D	30
Methane	Kerr	1000
Nitrate	9056/9210	100
Sulfate	9038/9056	1000

*or EPA equivalent method that can achieve the same reporting level

If sampling results indicate that the third interim CoC concentration reduction goal has not been maintained, and/or CoC concentrations exceed SSTLs in the verification wells, corrective action must be resumed. SCDHEC may require the contractor to propose a revised corrective action strategy and timetable to achieve and maintain the goal. The strategy may require modification of the existing corrective action system. The post-corrective action period will be suspended and corrective action will continue until the third interim CoC concentration reduction goal is again achieved and maintained for a period of 30 days, and CoC concentrations in the verification wells remain below SSTLs for a period of 30 days. Once again, the contractor will suspend corrective action and a new post-verification period will begin. The aforementioned cycle of activity must be repeated until CoC concentrations remain at or below SSTLs in all wells and sampling points listed in the Appendix, and in all verification wells for 2 consecutive quarters.

SCDHEC may require installation of (NUMBER) verification well(s) during the post-corrective action verification period at designated locations and depths. Costs for the verification wells will be considered part of the Corrective Action Cost. SSTLs for the verification wells will be provided by SCDHEC.

SCDHEC will collect split or duplicate samples from wells and sampling points in the area of concern to verify achievement of the second (90%) and third (100%) interim CoC concentration reduction goals, and may collect split or duplicate samples to verify achievement of the first (60%) interim CoC reduction goal. Split or duplicate samples will also be collected at the end of the two-quarter, post-corrective action verification period to confirm that corrective action goals have been maintained. In addition to the split samples, SCDHEC may provide up to three standards or prepared blanks for the contractor's laboratory to analyze. Analytical data sets from the contractor's laboratory and SCDHEC's laboratory will be compared. In the event of substantial variance (more than 15%) between the sets, a second split sampling event may be conducted with the contractor. If the variance persists, all data sets and associated quality assurance/quality control data will be provided to SCDHEC Laboratory Certification to determine the cause of the variance. The Director of the Assessment and Corrective Action Division, UST Program, will solicit input from Laboratory Certification, the UST Section Manager, the UST Project Manager, and the contractor, and render a final decision as to which data set will be used for verification. The contractor will be provided a written record of the decision.

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If the contractor anticipates that split sampling is warranted, SCDHEC must be allowed at least two weeks to schedule a mutually agreeable time for the split sampling event. Costs for transportation and analysis of split or duplicate samples collected by SCDHEC will be paid by SCDHEC.

11. **DEMobilization:** The contractor will disassemble and remove the corrective action system and associated equipment including utilities within 60 days of notification by SCDHEC that the corrective action goals have been achieved and maintained. Disruption to the owner/operator's or property owner's business must be kept to a minimum.
12. **Site Restoration:** The contractor must properly abandon all assessment and corrective action components (monitoring, recovery, and/or injection wells (including pre-existing wells), borings, trenches, piping/utility runs, etc.) within 60 days of notification by the SCDHEC that the corrective action goals have been achieved. Abandonment will be in accordance with South Carolina Well Standards and Regulations R. 61-71 and accepted industry standards for abandonment of trenches and piping/utility runs. Disruption to the owner/operator's or property owner's business must be kept to a minimum. The contractor must provide SCDHEC with documentation of the abandonment and disposal of any remaining contaminated soil, contaminated groundwater, and FPP. **The contractor will restore the site to the condition that existed prior to assessment and corrective action (e.g. repaving, reseeding, etc.)**
13. **Completion Notice:** Written notice must be provided to SCDHEC at least two weeks prior to completion of site restoration. This will allow SCDHEC and the contractor time to jointly inspect the site and, if necessary, compile a list of tasks to be finished. Task items may include, but are not limited to, well abandonment, pavement repair, debris removal, etc. **Site restoration will be complete once all the tasks are finished and/or the site passes a final inspection by SCDHEC.**

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IV. BID AWARD

A. ACCEPTANCE and DELIVERY STATEMENT

In compliance with the solicitation and subject to all requirements thereof, the offeror agrees, if this bid is accepted within _____ days from date of opening, to initiate the corrective action as specified at the prices set forth for all sites as stated below. For the purpose of this submittal and acceptance of financial approval should it occur, I certify that this company understands the nature of the releases and the geologic conditions at this site as documented in the technical file and this solicitation. **Any quantities listed in the corrective action method(s) below are estimates and changes to those quantities or to the listed method(s) will not affect the bid price.** Additionally, I certify that this company understands that acceptance is based on total cost to treat the areas of concern.

Contractor (Print)_____
Certification Number_____
Authorized Representative (Print)_____
Signature

B. CORRECTIVE ACTION SOLICITATION RESPONSE

Please respond to the following questions for Perry's North Main Texaco, 202 N. Main St., Lancaster, SC, UST Permit # 05576:

1. The corrective action method(s) or technology (ies) that will be proposed in the CAP will be:

2. The Corrective Action Completion Time, in months, to complete the corrective action from the date of corrective action system startup until corrective action goals are met will be _____ months.

3. The Corrective Action Cost, in whole dollars, regardless of the type, quantity, or duration of the permitted technology applied, to treat the area of concern shown in the Appendix such that the thickness of FPP does not exceed 0.01' at any point and CoC concentrations do not exceed SSTLs at any point; complete all associated monitoring and post-remediation verification; prepare all plans, reports, and correspondence; obtain and meet all terms and conditions of all required permits and licenses; design, install, monitor, operate, maintain, and when completed, properly abandon and/or remove all assessment and corrective action equipment and components; and complete other items outlined in this solicitation is: \$ _____

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PLEASE READ THE FOLLOWING CAREFULLY PRIOR TO COMPLETING BID INSTRUCTIONS TO BIDDERS

DISCUSSIONS AND NEGOTIATIONS: By submission of a bid, bidder agrees that during the period following issuance of this solicitation and prior to notification of intent or award of a contract, the bidder shall not discuss this procurement with any party except members of the DHEC Procurement Division or other parties designated in this solicitation. Bidder shall not discuss or attempt to negotiate with the using area or program any aspects of the procurement without prior approval of the DHEC Procurement Division Buyer responsible for the procurement. Infractions may result in rejection of the violator's bid.

1. Unless otherwise required herein, only one signed copy of the invitation to bid is required.
2. Bids "faxed" directly to the DHEC Procurement Office will not be accepted or considered for award.
3. Bids, amendments thereto or withdrawal request must be received by the time advertised for bid opening. It is the bidder's sole responsibility to insure that these documents are received by the person (or office) at the time indicated in this solicitation document. DHEC Underground Storage Tank Environmental Remediation Procedures shall govern any withdrawal request received after the time of the bid opening.
4. When specifications or descriptive papers are submitted with the bid submission, enter bidder's name thereon.
5. Submit your signed bid on this form. Show the bid number on the envelope as instructed. DHEC assumes no responsibility for unmarked or improperly marked envelopes. All envelopes received showing a bid number are placed directly under locked security until the date and time of opening. Do not include more than one bid invitation per envelope. If directing any other correspondence, address the envelope to the Procurement Officer but do not include the bid number on the envelope since it does not include your bid.
6. Bidders must clearly mark as "CONFIDENTIAL" each part of their bid which they consider to be proprietary information that could be **exempt from disclosure** under Section 30-4-40, Code of Laws of South Carolina 1976 (1986 Cum. Supp.; Freedom of Information Act). If any part is designated as confidential, there must be attached to that part an explanation of how this information fits within one or more categories listed in Section 30-4-40. DHEC reserves the right to determine whether this information should be exempt from disclosure and no legal action may be brought against the State, DHEC or its agents for its determination in this regard.
7. By submission of a bid, **you are guaranteeing** that all goods and services meet the requirements of this solicitation during the contract period.
8. **Tie bids** will be resolved as outlined in DHEC Underground Storage Tank Environmental Remediation Procedures.
9. **Do not include any taxes** that DHEC may be required to pay in the bid price. Upon submission of a bid by a state agency, the Procurement Officer will compute a 5% sales and use tax to the non-state agency bids when applicable (service and labor excluded) in determining the low bidder. This procedure conforms to the SC Tax Commission Sales and Use Tax Regulation 117-174-. 95.
10. **Correction of errors on this bid form:** All prices and notations should be printed in ink or typewritten. Errors should be crossed out, corrections entered and initialed by the person signing the bid. Erasures or use of typewriter correction fluid may be cause for rejection. No bid shall be altered or amended after the time specified for the bid opening.
11. **Ambiguous bids** that are uncertain as to terms, delivery, quantity, or compliance with this solicitation may be rejected or otherwise disregarded.
12. Any bidder desiring to exercise a grievance may do so under section IV of DHEC Underground Storage Tank Environmental Remediation Procedures. All correspondence should be directed to the Director of Procurement Services, Bureau of Business Management, 2600 Bull Street, Columbia, SC 29201.
13. **Failure to respond** to three consecutive bid notices may result in removal of bidder's name from the mailing list.

GENERAL PROVISIONS

14. DHEC reserves the right to reject any and all bids, and to cancel this solicitation.
15. **Unit prices** will govern over extended prices unless otherwise stated in this solicitation.
16. **Prohibition of Gratuities:** Amended section 8-13-420 of the 1976 Code of Laws of South Carolina States: "Whoever gives or offers to any public official or public employee any compensation, including a promise of future employment, to influence his action, vote, opinion or judgment as a public official or public employee or such public official solicits or accepts such compensation to influence his action, vote, opinion or judgment shall be subject to the punishment as provided by Section 16-9-210 and Section 16-9-220. The provisions of this section shall not apply to political contributions unless such contributions are conditioned upon the performance of specific actions of the person accepting such contribution nor shall they prohibit a parent, grand-parent or relative from making a gift to a child, grandchild, or other close relative for love and affection except as hereafter provided".

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17. **Bidder's Qualification:** Bidders must, upon request of DHEC, furnish satisfactory evidence of their ability to furnish products or services in accordance with the terms and conditions of these specifications. DHEC reserves the right to make the final determination as to the bidder's ability to provide the products or services requested herein.
18. **Bidder's Responsibility:** Each bidder shall fully acquaint himself with conditions relating to the scope and restrictions attending the execution of the work under the conditions of this solicitation. It is expected that this will sometimes require on-site observation. The failure or omission of a bidder to acquaint himself with existing conditions shall in no way relieve him of any obligation with respect to this bid or to the subsequent contract.
19. **Amendments:** All amendments to and interpretations of this solicitation shall be in writing from the DHEC Procurement Office. Neither DHEC nor the Procurement Officer shall be legally bound by any amendment or interpretation that is not in writing.
20. **Award Criteria:** Award shall be as indicated herein to the lowest responsible and responsive bidder whose bid meets the requirements and criteria set forth in this solicitation. Award may take longer than fourteen days. A copy of the award notice should be posted on Procurement Services' website at: dhec.sc.gov/procurement.
21. **Rejection:** DHEC reserves the right to reject any bid that contains prices for individual items or services that are unreasonable when compared to the same or other bids if the rejection is in the best interest of the State.
22. **Competition:** This solicitation is intended to promote competition. If the language, specifications, terms and conditions, or any combination thereof restricts or limits the requirements in this solicitation to a single source, it shall be the responsibility of the interested bidders to notify the DHEC Procurement Office in writing so as to be received five days prior to the opening date. Notification may be "faxed" to the DHEC Procurement Office, (803) 898-3505. The solicitation may or may not be changed but a review of such notification will be made prior to award.
23. **Order of Precedence:** In the event of inconsistency between provisions of this solicitation, the inconsistency shall be resolved by giving precedence in the following order; (A) the bidding schedule, (B) the specifications, (C) general conditions, (D) special provisions or special conditions of the contract whether incorporated by reference or otherwise, and (E) instruction to bidders.

GENERAL CONDITIONS

24. **Contract Administration:** Questions or problems arising after award of this solicitation/contract shall be directed to the DHEC Procurement Office, 2600 Bull Street, Columbia, SC, 29201. Reference the solicitation and contract number.
25. **Default:** In case of default by the contractor, DHEC reserves the right to purchase any or all items in default in the open market, charging the contractor with any additional costs. The defaulting contractor shall not be considered a responsible bidder until the assessed charge has been satisfied.
26. **Save Harmless:** (This General Condition does not apply to solicitations for service requirements). The successful bidder shall indemnify and save harmless the State of South Carolina and DHEC and all its officers, agents and employees from all suits or claims of any character brought by reason of infringing on any patent, trade mark or copyright. The bidder shall have no liability to DHEC if such patent, trademark or copyright infringement or claim is based upon the bidder's use of material furnished to the bidder by the State.
27. **Publicity Releases:** By submission of a bid, the contractor agrees not to refer to award of this contract in commercial advertising in such a manner as to state or imply that the products or services provided are endorsed or preferred by DHEC or user.
28. **Tax Credit Availability:** Bidders interested in income tax credit availability by subcontracting with Certified Minority Firms should contact the Office of Minority Business Assistance, 1205 Pendleton Street, Columbia, SC, 29201. (803-734-0562)
29. **Affirmative Action:** The successful bidder will take affirmative action in complying with all Federal and State requirements concerning fair employment and employment of the handicapped, and concerning the treatment of all employees, without regard or discrimination by reason of race, color, religion, sex, national origin or physical handicap.
30. **Assignment:** Unless otherwise indicated in this solicitation, no contract or its provisions may be assigned, sublet, subcontracted, or transferred without the prior written consent of the DHEC Procurement Office.
31. **Termination:** Any contract resulting from this solicitation may be terminated by DHEC by providing a thirty-day advance notice in writing to the successful contractor.
32. **Non-Appropriations:** Any contract entered into by DHEC resulting from this solicitation shall be subject to cancellation without damages or further obligation when funds are not appropriated or otherwise made available to support continuation of performance in a subsequent fiscal period or appropriated year.
33. **Convenience:** In the event that this contract is terminated or canceled upon request and for the convenience of DHEC without the required thirty days advance written notification, then DHEC shall negotiate reasonable applicable termination costs.

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34. **Cause:** Any contract resulting from this solicitation may be terminated without advance notice by DHEC for cause, default or negligence on the part of the successful contractor.
35. **S.C. Law Clause:** Upon award of a contract under this bid, the person/partnership, association or corporation to whom the award is made must comply with the laws of South Carolina which require such person or entity to be authorized and/or licensed to do business with this State. Notwithstanding the fact that applicable statutes may exempt or exclude the successful bidder from requirements that it be authorized and/or licensed to do business in this State. By submission of a bid, the bidder agrees to subject himself to the jurisdiction and process of the courts of the State of South Carolina as to all matters and disputes arising or to arise under the contract and the performance thereof, including any questions as to the liability for taxes, licenses or fees levied by the State of South Carolina.
36. **Quality of Product:** (This general condition does not apply to solicitations for printing or service requirements.) Unless otherwise indicated in this solicitation, it is understood and agreed that any item offered or shipped as a result of this solicitation shall be new and in first class condition, that all containers shall be new and suitable for storage or shipment, and that prices include standard commercial packaging. If items that are other than new (i.e., remanufactured or refurbished) are desired to be bid, the bidder must obtain written permission to bid such items at least five days in advance of the bid opening date. Written permission must be obtained from the DHEC Procurement Office.
37. **Compliance with Federal Requirements:** S.C. State or Federal requirements that are more restrictive shall be followed in bidding, awarding and performance of this contract.
38. **Drug-Free Workplace:** Required by Section 44-107-10 (Drug Free Work-Place Act) of the SC Code of Laws, 1976, as amended. By submission of a bid, the bidder certifies that he will comply with all aspects of the Drug-Free Workplace Act and will not engage in the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance in the performance of this contract. This certification also applies to any individual or firm employed by the contractor.
39. **Confidentiality Policy:** The successful contractor agrees to abide by DHEC's policy of confidentiality which states in part that all information as to personal facts and circumstances given or made available to employees and/or contractors of DHEC in administration of programs shall be held confidential and shall not be divulged without the express written consent of the individual(s) to which it pertains.
40. **Item Substitution:** No substitution of items will be allowed on any purchase made from the awarded contract without written permission from the DHEC Procurement Office.
41. **Outside Contractor Program:** If applicable to scope of contract, contracted employees working on DHEC properties are entitled to information about hazardous chemicals present at DHEC; and DHEC's personnel are entitled to information about hazardous chemicals brought to the facilities by contractors. In order to assure continued compliance with the Hazard Communication Standards while contractors are on DHEC property and to control potential compliance obligations under the Superfund Amendments and Re-authorization Act, it is DHEC's policy to:
 - A. Obtain written assurance that the contractor's employees have been trained to understand the hazards of the chemicals at DHEC and how to use appropriate personal protective equipment. All personal protective equipment and training required for the contractor's employees will be provided by the contractor at the contractor's expense. (This includes SC State General Services employees).
 - B. Require the contractor to notify the DHEC Bureau of Business Management or the appropriate DHEC unit Director when introducing hazardous chemicals into DHEC work areas, which may harmfully expose DHEC employees. If the contractor is introducing such hazardous chemicals into any DHEC facility or onto DHEC property, the contractor shall provide the DHEC Division of Procurement Services or the DHEC unit Director copies of the Material Safety Data Sheets (MSDS) for those chemicals. The DHEC Division of Procurement Services or the DHEC unit Director should provide appropriate information to the DHEC employees before the contractor(s) enter any DHEC facility with chemicals.
 - C. DHEC reserves the right to refuse to allow any contractor to bring any chemical onto DHEC property. The Department also reserves the right to refuse to allow any contractor to bring certain quantities of chemicals on DHEC property.

Appendix A

Distribution List for Plans and Reports

Responsible Party:

Mr. Mickey Perry
Perry's North Main Texaco
202 N Main St.
Lancaster, SC 29720

Adjacent Property Owners:

Fred Mullis PO Box 727 Lancaster, SC 29721	0068P-0D-008.00 208 N. Main St.
--	------------------------------------

Vineyard Financing LLC 3431 Cedar Lane Tallahassee, FL 32312	0068P-0D-001.00 & 0068P-0D-005.00 210 N. Main St. & 201 N. Catawba St.
--	---

Pelston Management Corp. 69-16 261 st St. Floral Park, NY 11004	0068P-0E-002.00 207 N. Main St.
--	------------------------------------

Ruth E. Wilson PO Box 1839 Lancaster, SC 29721	0068P-0K-001.00 128 N. Main St.
--	------------------------------------

County of Lancaster PO Box 1809 Lancaster, SC 29721	0068P-0K-002.02 & 0068P-0J.00 E. Meeting at N. Catawba St. & 119 S. Main St.
---	---

Sylvia & Spencer Simpson 2305 Sailfish Dr. Murrells Inlet, SC 29576	0068I-0V-005.00 301 N. Main St.
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Danny Crolley PO Box 193 Lancaster, SC 29721	0068P-0E-001.00 207 N. Main St.
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E.M. & Ruth Melton PO Box 907 Lancaster, SC 29721	0068P-0C-001.00 N. Main St.
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Ruth Neal 1757 Windsor Dr. Lancaster, SC 29720	0068P-0C-011.00 302A N. Main St.
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Sandra Plyer et al. 2768 Cimmeron Rd. Lancaster, SC 29720	0068P-0C-004.00 306 N. Main St.
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Philip E. Wright, PA
408 N. Main St.
Lancaster, SC 29720

List of Adjacent Facilities

- UST Permit # 05555, G. F. Taylor's Service Station, 201 N. Main St., Lancaster, SC
Release reported April 9, 1991; No Further Action issued June 29, 1994
- UST Permit # 15155, Mahaffey Funeral Home, 201 N. Catawba St., Lancaster SC
Release Reported November 30, 1992; No Further Action issued April 23, 1993

Table of Analytical Parameters

Analyte	Analytical Method*	Reporting Limit
BTEX*	8260B	5 µg/l
Naphthalene*	8260B	5 µg/l
MTBE*	8260B	5 µg/l
TBA, TAA, DIPE, TAME	8260B	5 µg/l

* The Bureau of Land and Waste Management UST Program no longer accepts equivalent analytical methods for VOC analysis.

The above analyses are required for quarterly sampling.

Verification Wells

Two verification wells may be installed during the post-corrective action monitoring period at locations and depths designated by the UST Program. Costs for the well installation are considered part of the approved Corrective Action Cost. The Program will calculate SSTLs for the verification wells and provide the data to the Contractor in writing. During verification, all wells must be sampled for the parameters listed above as well as the following parameters:

Analyte	Analytical Method*	Reporting Limit
Dissolved Oxygen	SM4500-O G	500 µg/l
Ferrous Iron	SM3500-Fe D	30 µg/l
Methane	Kerr Method	1 mg/l
Nitrate	9056/9210	100 µg/l
Sulfate	9038/9056	1000 µg/l

Table of Current CoC Concentrations in Groundwater

CoC concentrations requiring reduction in parts per billion (µg/l) based on December 9 & 10, 2008 sampling and gauging:

Well	Free Product Thickness	Benzene	Toluene	Ethylbenz.	Xylene	Naphth.	MtBE	TBA	TAA	DIPE	TAME
MW-1		<5	<5	<5	<5	8.8	15	<20	<20	<1	1.7
MW-2		<5	<5	<5	<5	<5	<5	<20	<20	<1	<1
MW-3		480	<100	<100	<100	<100	4200	180	<20	36	140
MW-4		3400	<1000	2300	7600	<1000	48,000	<4000	<4000	450	1600
MW-5**	0.34'										
MW-6		11,000	<2500	3800	6700	<2500	200,000	<10,000	<10,000	1100	5500
MW-7		<2500	<2500	<2500	<2500	<2500	200,000	<10,000	<10,000	<500	2300
MW-8**	0.31'										
MW-9		<100	100	<100	160	<100	6100	<400	<400	<20	180
MW-10		<1000	<1000	<1000	<1000	<1000	35,000	<4000	<4000	200	2200
MW-11		<5	<5	<5	<5	<5	110	<20	27	21	16
MW-12		<5	<5	<5	<5	<5	<5	<20	<20	<1	<1
MW-13		<5	<5	<5	<5	<5	<5	<20	<20	<1	<1
MW-14		<5	<5	<5	<5	<5	<5	<20	<20	<1	<1
MW-15		520	<250	<250	<250	<250	8200	<1000	<1000	64	270
MW-16		1400	120	690	1100	360	<50	<200	800	<10	<10
MW-17		<5	<5	<5	<5	<5	29	<20	<20	<1	<1
MW-18		<5	<5	<5	<5	<5	<5	<20	<20	<1	<1
MW-19		<5	<5	<5	<5	<5	<5	<20	<20	<1	<1
MW-20		<5	<5	<5	<5	<5	<5	<20	<20	<1	<1
MW-21		<5	<5	<5	<5	<5	<5	<20	<20	<1	<1
MW-22		<5	<5	<5	<5	<5	<5	<20	<20	<1	<1
MW-23		<5	<5	<5	<5	<5	17	<20	<20	<1	<1
MW-24		<5	<5	<5	<5	<5	<5	<20	<20	<1	<1
MW-25		<5	<5	<5	<5	<5	<5	<20	<20	<1	<1
MW-26		<5	<5	<5	<5	<5	<5	<20	<20	<1	<1
MW-27		<5	<5	<5	<5	<5	<5	<20	<20	<1	<1
MW-28		<5	<5	<5	<5	<5	<5	<20	<20	<1	<1
MW-29		<5	<5	<5	<5	<5	<5	<20	<20	<1	<1
MW-30		<5	<5	<5	<5	<5	110	<20	<20	<1	4
MW-31		<5	<5	<5	<5	<5	<5	<20	<20	1.4	4
MW-32		<5	<5	<5	<5	<5	<5	<20	<20	<1	<1
Fox Pizza MW		<5	<5	5	<5	<5	<5	<20	<20	<1	<1

* CoC concentrations may vary due to seasonal fluctuations in the groundwater.

** Initial CoC concentrations will be set at the levels detected after the removal of Free Phase Product

Table of SSTLs

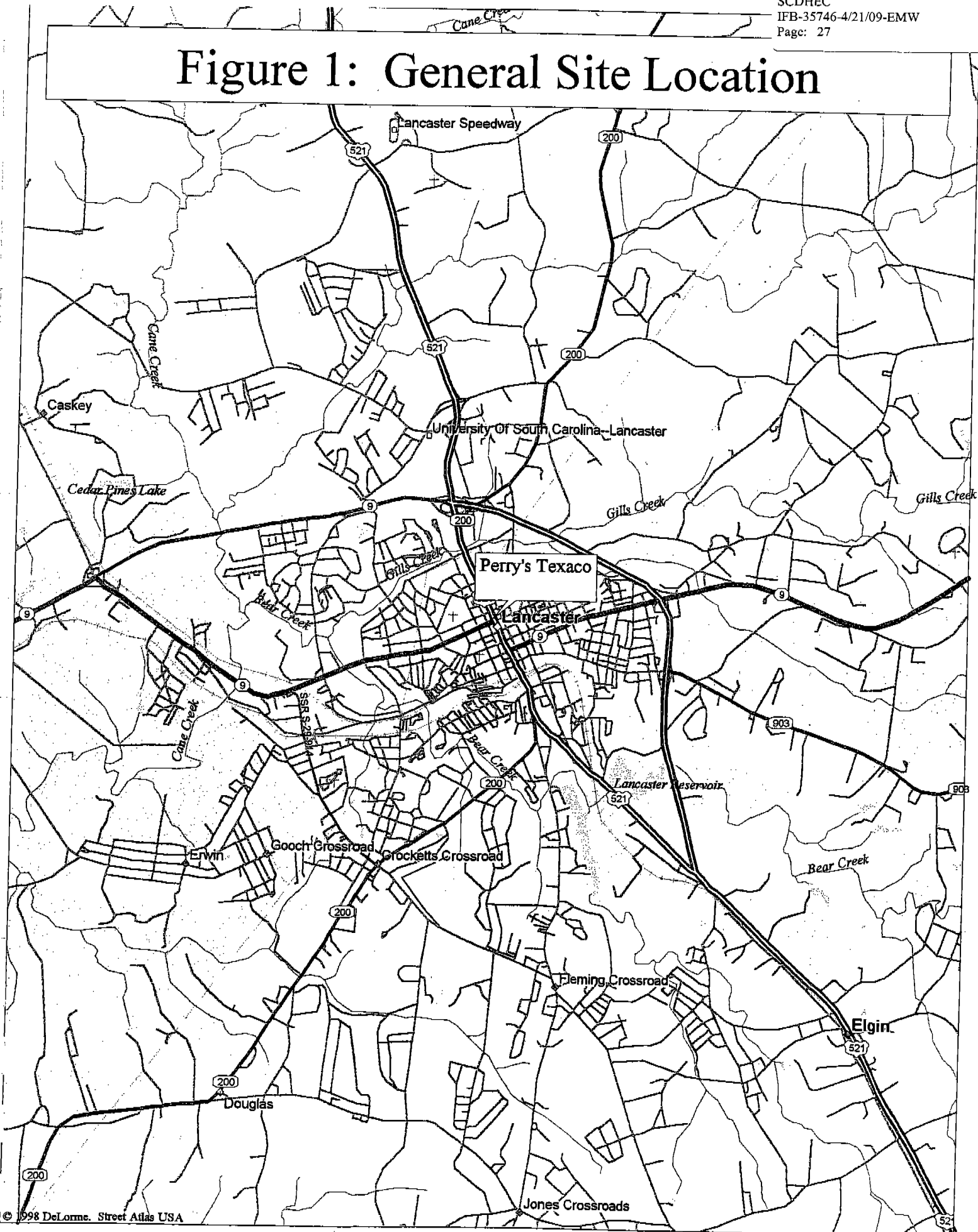
Site-specific target levels (SSTLs) for interim payment under this solicitation in parts per billion (µg/l).

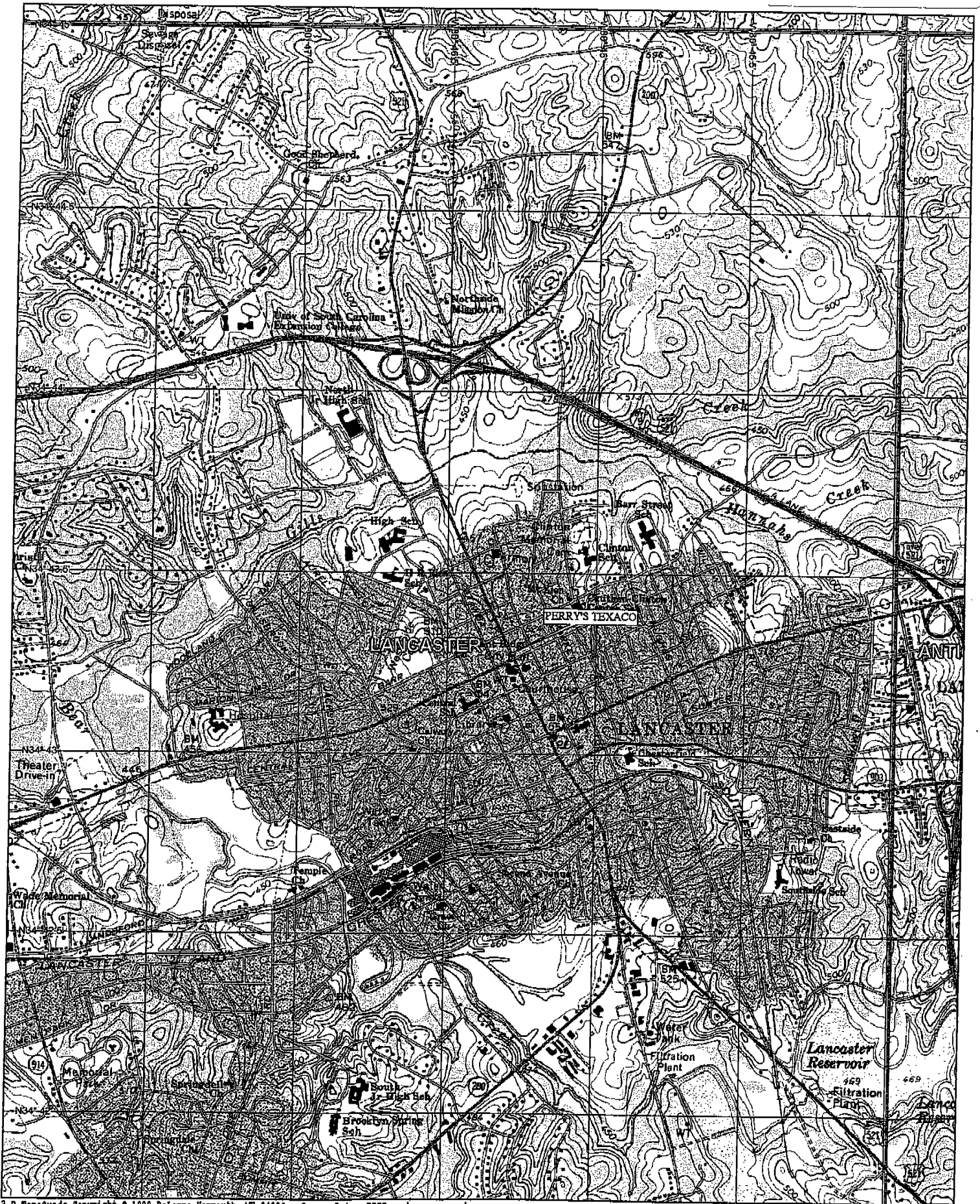
Well	Benzene	Toluene	Ethylbenzene	Xylene	Naphth.	MtBE	TBA	TAA	DIPE	TAME
MW-3	32	100**	100**	100**	100**	152	180*	20**	36*	140*
MW-4	39	1000**	2300*	7600*	603	171	4000**	755	450*	403*
MW-5	29	4985	3394	75,071	365	143	3892	667	1114	356
MW-6	29	2500**	3394	6700*	365	143	3892	667	1100*	356
MW-7	29	2500**	2500**	2500**	365	143	3892	667	500**	356
MW-8	17	3166	2178	41,136	157	102	3052	523	613	279
MW-9	17	100*	100**	160*	100**	102	400**	400**	20**	180*
MW-10	8	1000**	1000**	1000**	51	59	1956	335	200*	179
MW-11	5**	5**	5**	5**	5**	59	20**	27*	21*	16*
MW-15	38	250**	250**	250**	250**	167	1000**	1000**	64*	270*
MW-16	64	120*	690*	1100*	360*	228	200**	800*	10**	10**
MW-30	5**	5**	5**	5**	5**	102	20**	20**	1**	4**
Total	312	15,731	15,916	135,627	2726	1571	22,504	5881	4129	2549

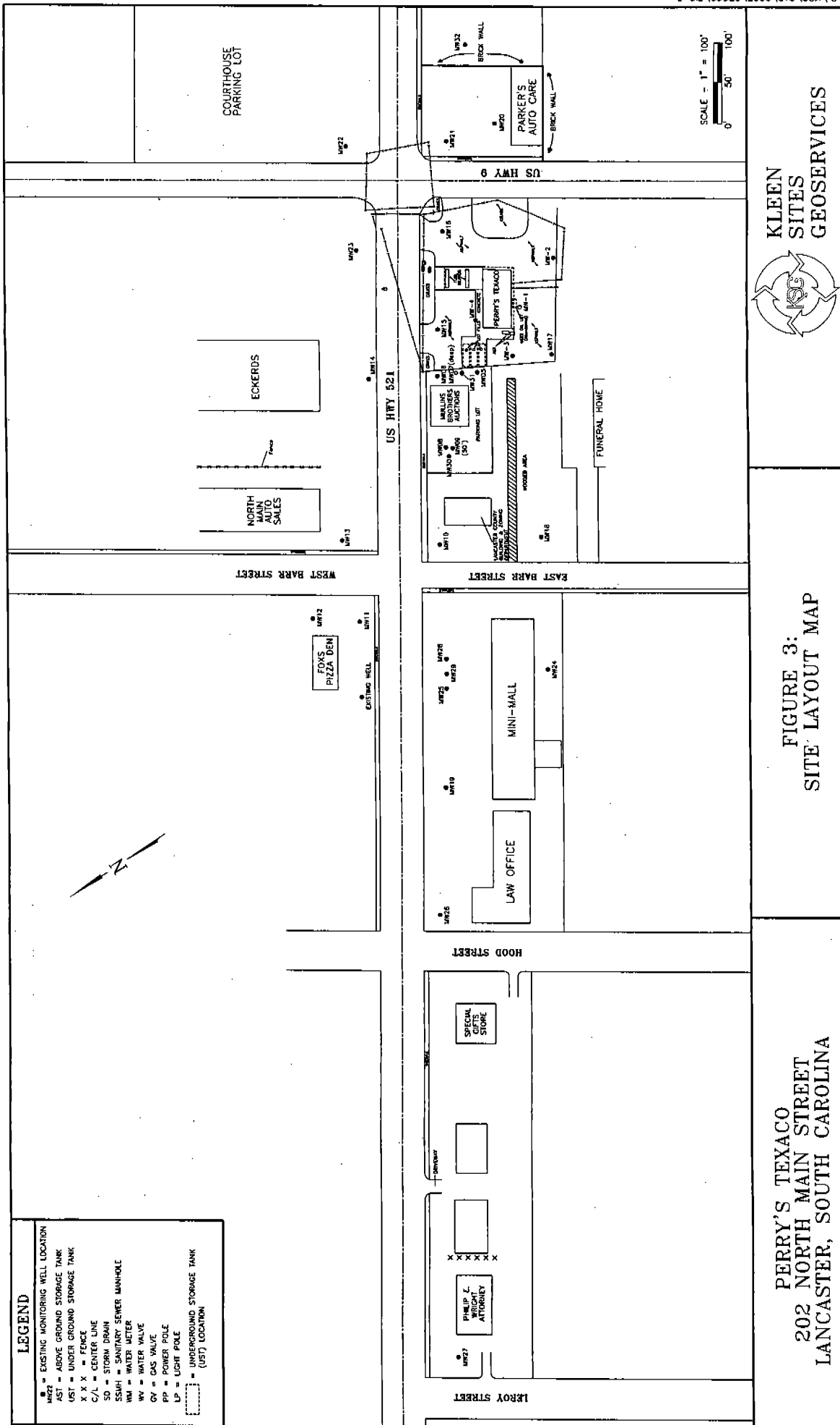
* Laboratory analysis is less than calculated SSTL. SSTL is set equal to laboratory analysis.

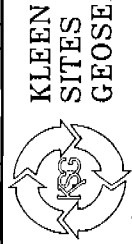
** Laboratory analysis is below detection limit. SSTL is set equal to detection limit.

Figure 1: General Site Location





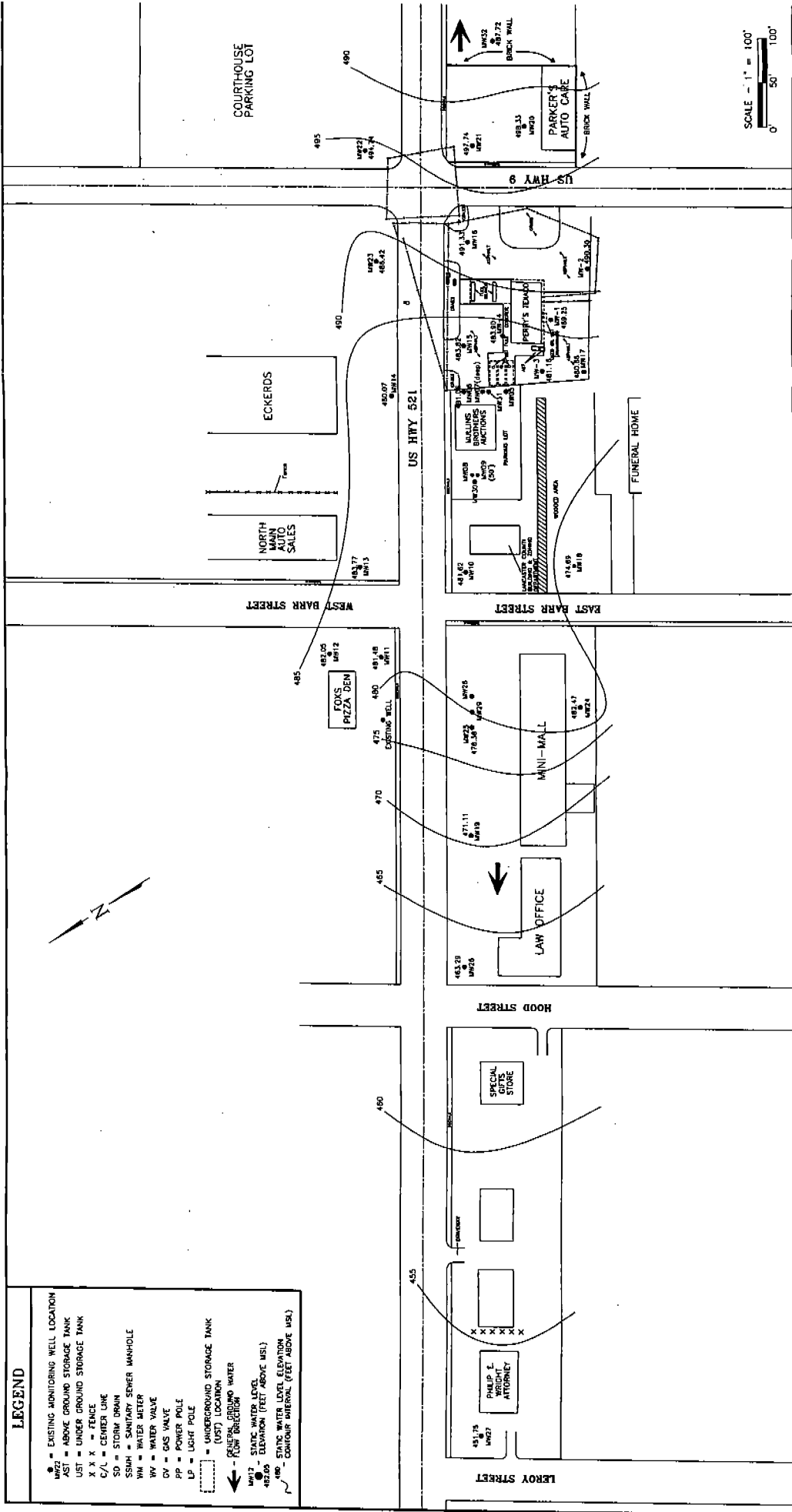


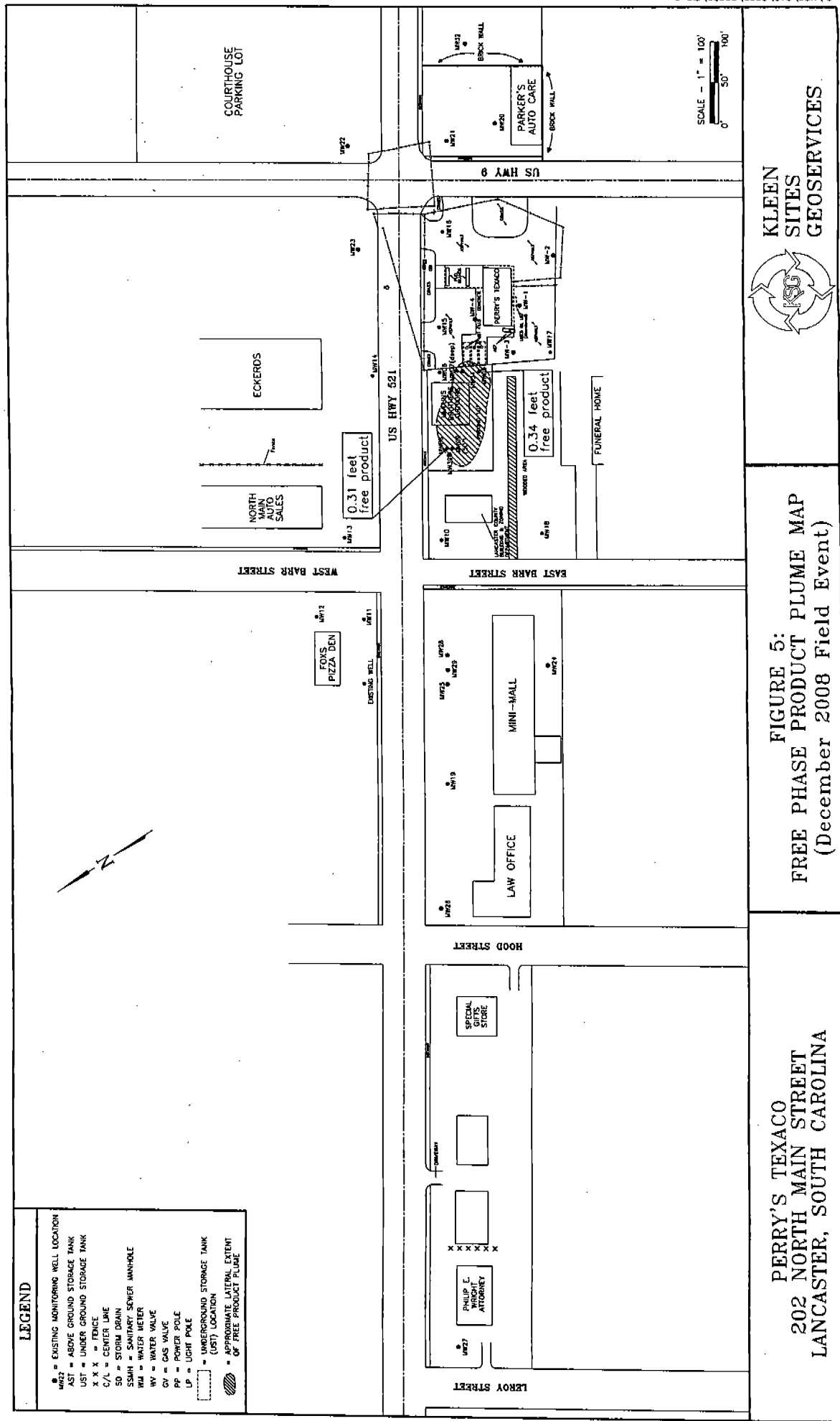


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GEOSERVICES

FIGURE 4:
STATIC WATER LEVEL
ELEVATION MAP

PERRY'S TEXACO
202 NORTH MAIN STREET
LANCASTER, SOUTH CAROLINA





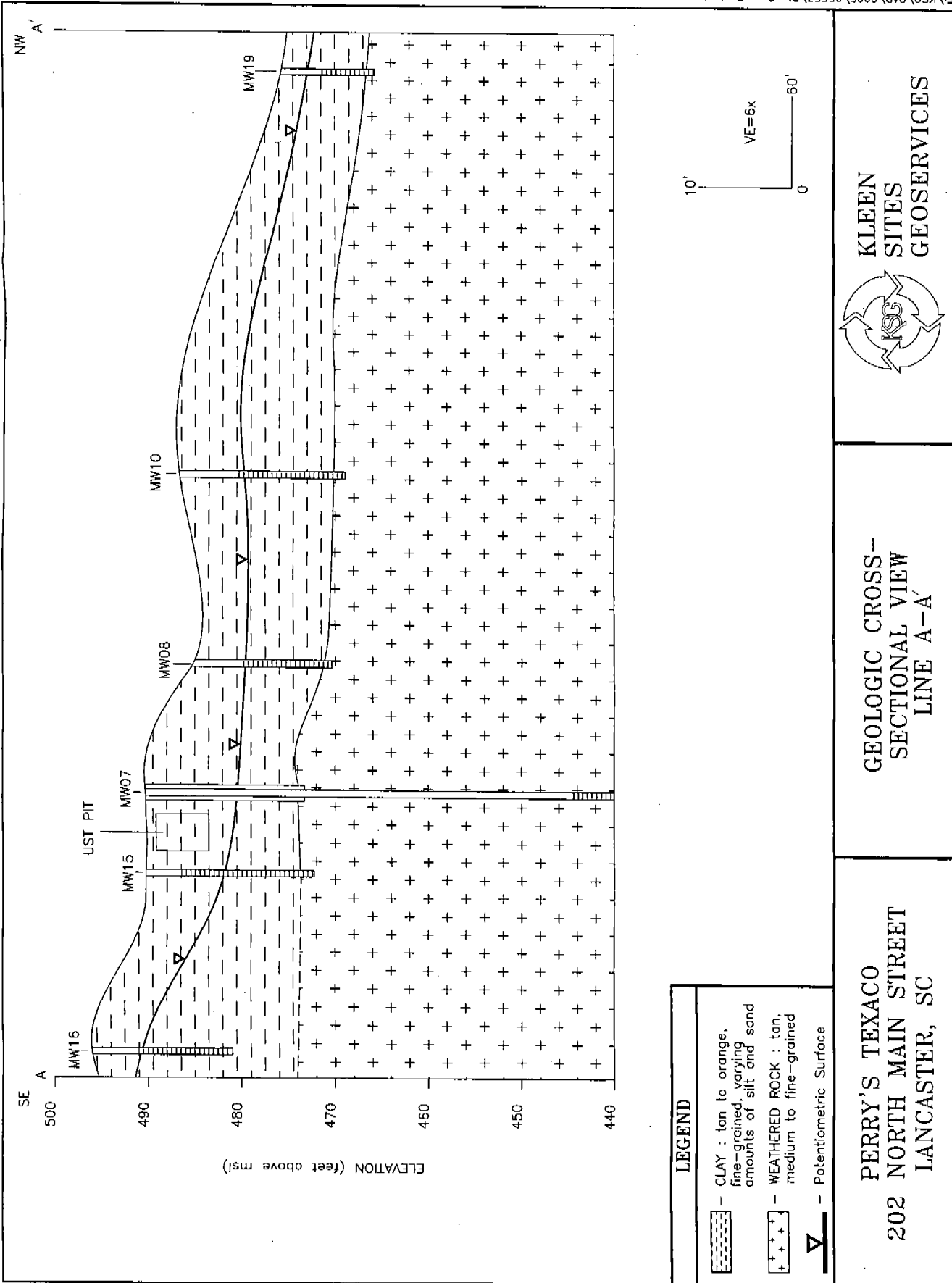


**FIGURE 6:
GROUNDWATER COC
CONCENTRATION MAP
(December 2008 Field Event)**

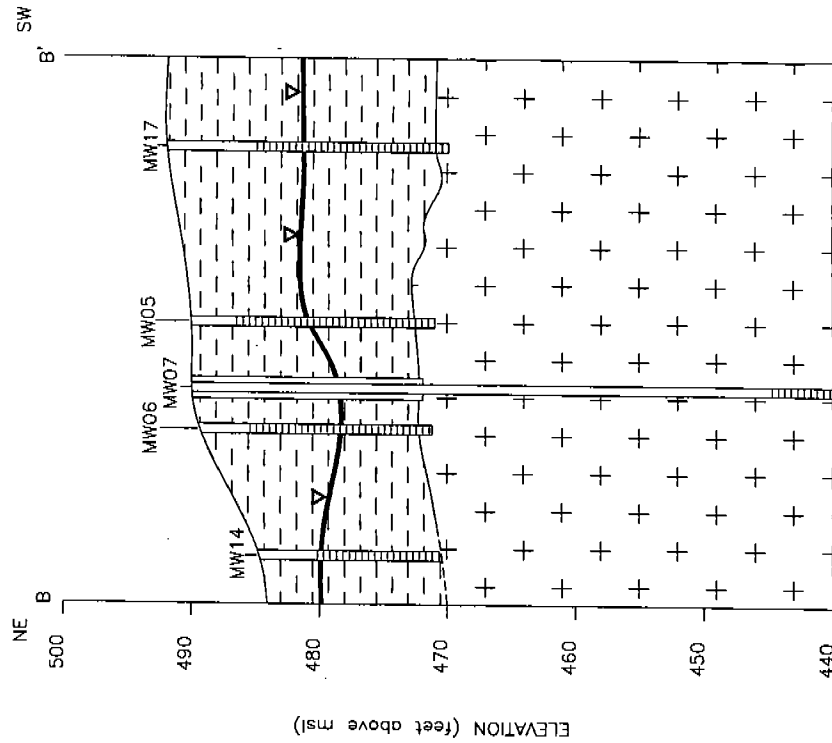
PERRY'S TEXACO
202 NORTH MAIN STREET
LANCASTER, SOUTH CAROLINA



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F:\KSG\CAD\2005\05553\DiagCrossSect. B



10'
0 60'
VE=6x

LEGEND

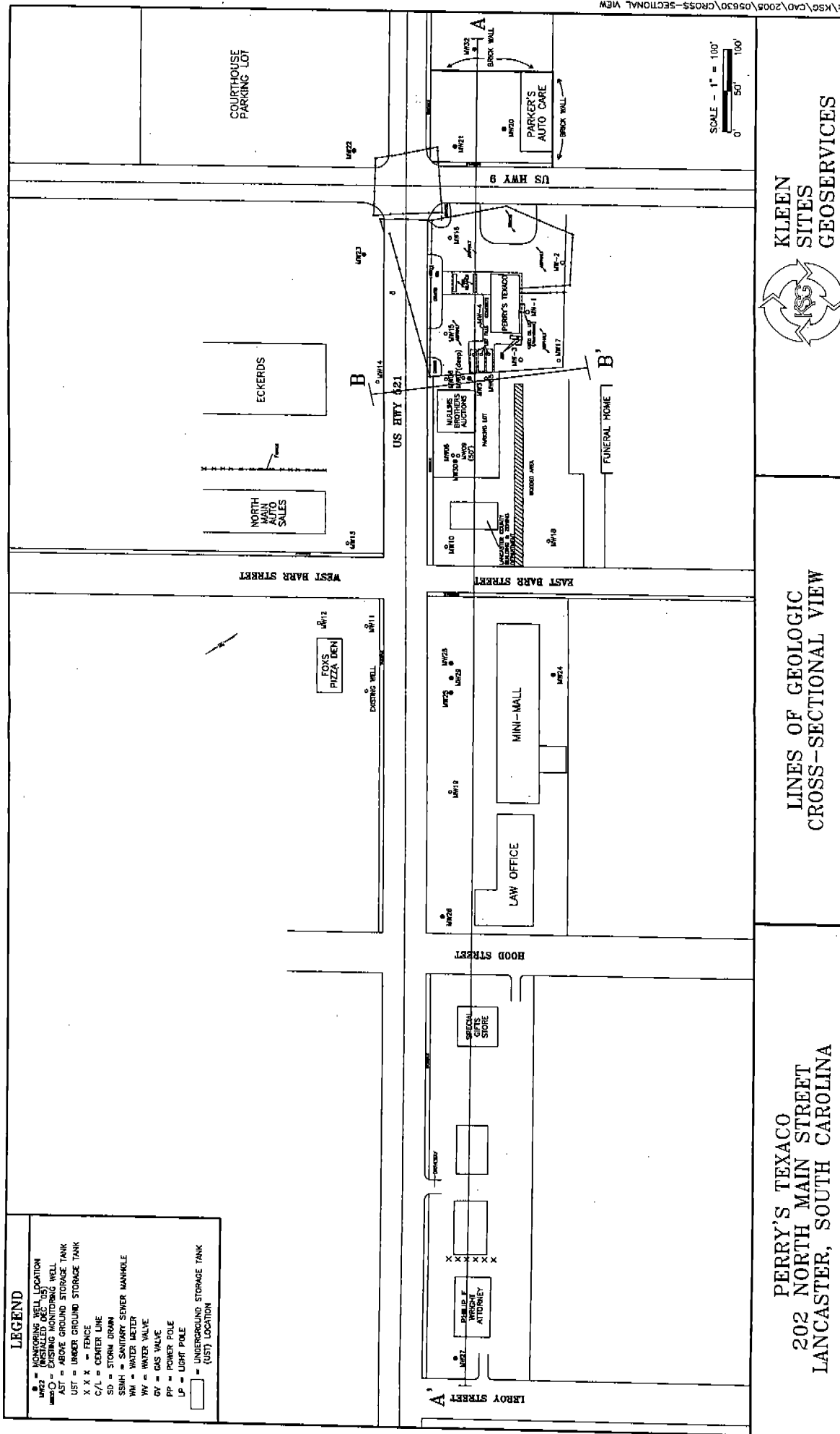
- CLAY : tan to orange, fine-grained, varying amounts of silt and sand
- WEATHERED ROCK : tan, medium to fine-grained
- Potentiometric Surface

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GEOLOGIC CROSS-
SECTIONAL VIEW
LINE B-B'

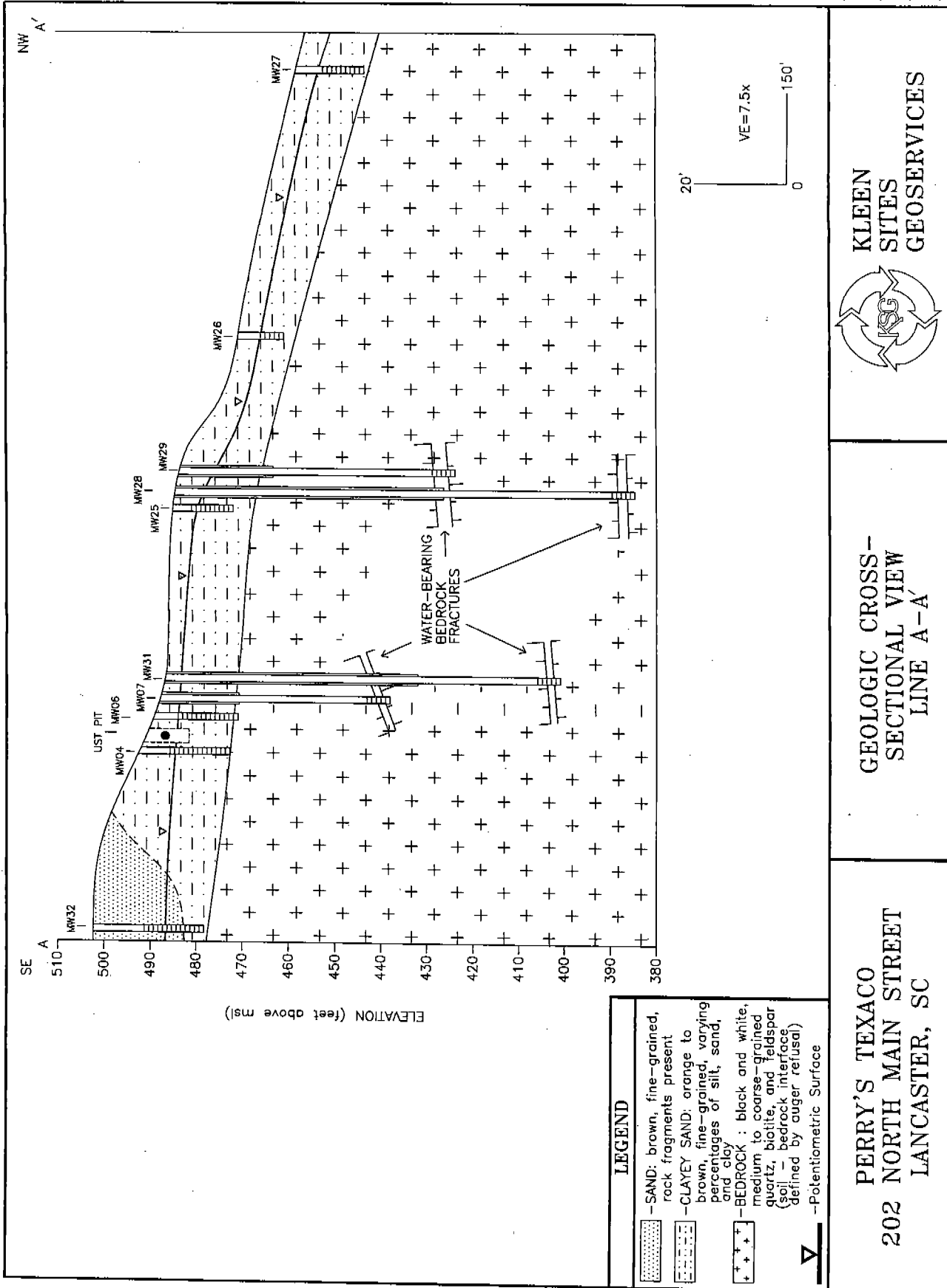
PERRY'S TEXACO
202 NORTH MAIN STREET
LANCASTER, SC



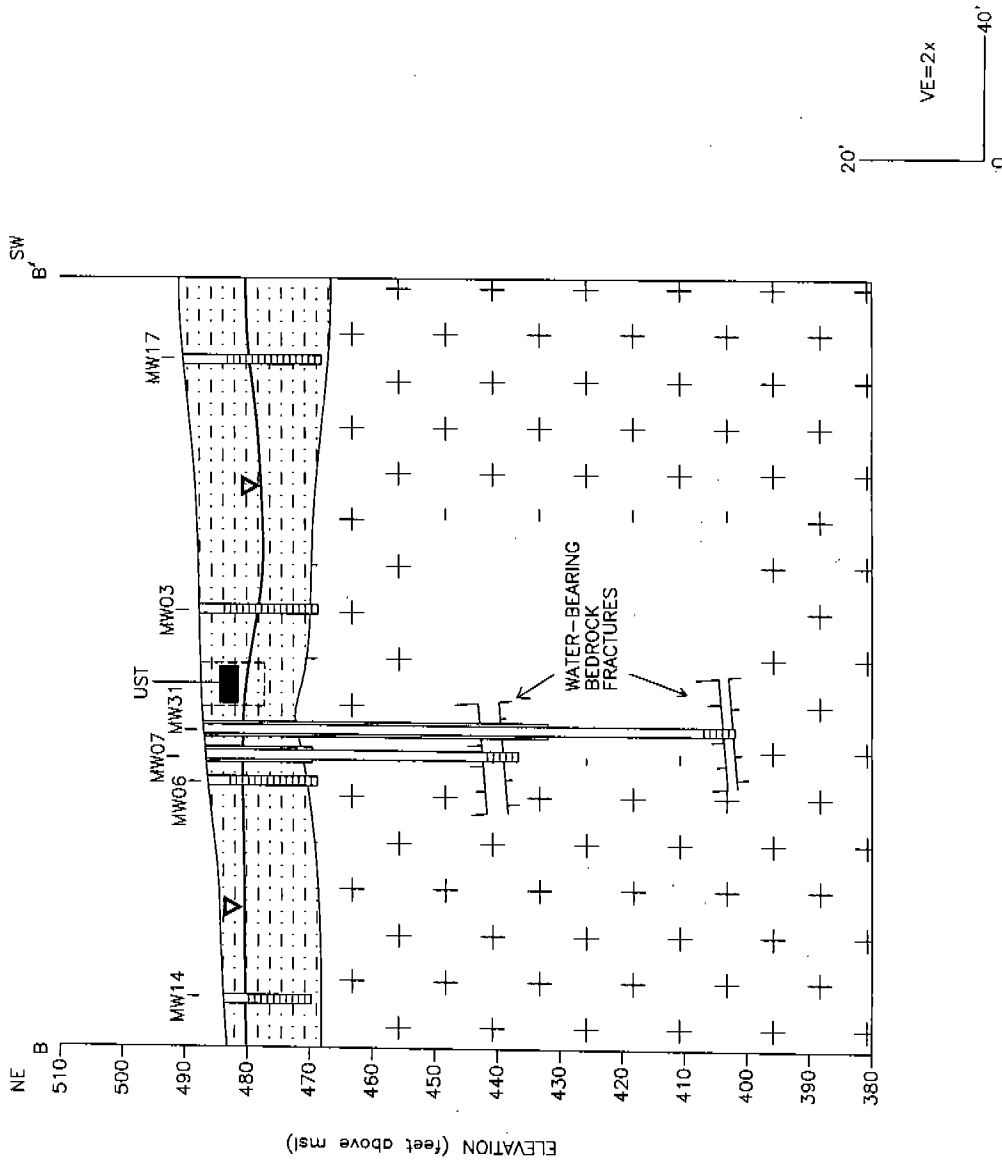
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LINES OF GEOLOGIC
CROSS-SECTIONAL VIEW

F:\KSG\CAD\2005\05630\DiagCrossSect. A



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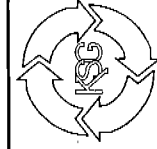


LEGEND

- CLAYEY SAND: orange to brown, fine-grained, varying percentages of silt, sand, and clay
- BEDROCK : black and white, medium to coarse-grained quartz, biotite, and feldspar (soil - bedrock interface defined by auger refusal)
- Potentiometric Surface

PERRY'S TEXACO
 202 NORTH MAIN STREET
 LANCASTER, SC

GEOLOGIC CROSS-
 SECTIONAL VIEW
 LINE B-B'

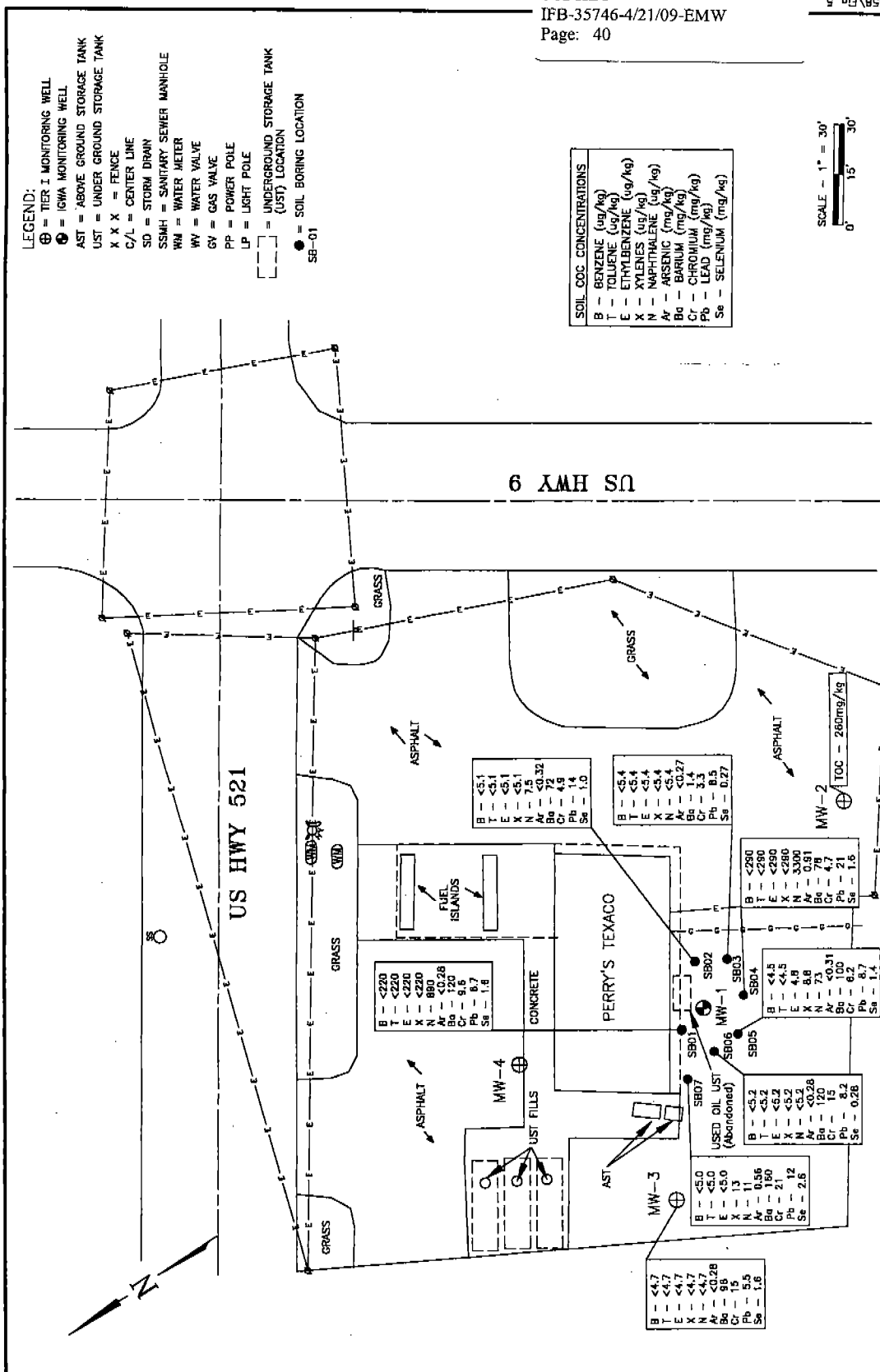


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 GEOSERVICES

Soil Analytical Data

Chemical of Concern	SB01	SB02	SB03	SB04	SB05	SB06	SB07
Depth of Sample	9 - 11'	9 - 11'	4 - 6'	4 - 6'	4 - 6'	9 - 11'	9 - 11'
Benzene (µg/kg)	< 220	< 5.1	< 5.4	< 290	< 4.5	< 5.2	< 5.0
Toluene (µg/kg)	< 220	< 5.1	< 5.4	< 290	< 4.5	< 5.2	< 5.0
Ethylbenzene (µg/kg)	< 220	< 5.1	< 5.4	< 290	4.8	< 5.2	< 5.0
Xylenes (µg/kg)	< 220	< 5.1	< 5.4	< 290	8.8	< 5.2	13
Naphthalene (ug/kg)	890	7.5	< 5.4	3300	73	< 5.2	11
Benzo(a)anthracene (mg/kg)	< 0.360	< 0.420	< 0.360	< 0.380	< 0.400	< 0.360	< 0.410
Benzofluoranthene (mg/kg)	< 0.360	< 0.420	< 0.360	< 0.380	< 0.400	< 0.360	< 0.410
Chrysene (mg/kg)	< 0.360	< 0.420	< 0.360	< 0.380	< 0.400	< 0.360	< 0.410
Dibenzanthracene (mg/kg)	< 0.360	< 0.420	< 0.360	< 0.380	< 0.400	< 0.360	< 0.410
Fluorene (mg/kg)	960	< 0.420	< 0.360	1.400	0.860	< 0.360	< 0.410
Phenanthrene (mg/kg)	3000	< 0.420	< 0.360	2.700	1.900	0.800	< 0.410
Pyrene (mg/kg)	590	< 0.420	< 0.360	0.600	< 0.400	< 0.360	< 0.410
TPH (EPA 3550) (mg/kg)	N/A	N/A	N/A	N/A	N/A	N/A	220
TOC (mg/kg)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arsenic (mg/kg)	< 0.28	< 0.32	< 0.27	0.91	< 0.31	< 0.28	0.56
Barium (mg/kg)	120	72	1.4	78	100	120	160
Cadmium (mg/kg)	< 0.11	< 0.13	< 0.11	< 0.12	< 0.12	< 0.11	< 0.13
Chromium (mg/kg)	9.6	4.9	3.3	4.7	6.2	15	21
Lead (mg/kg)	6.7	14	8.5	21	8.7	8.2	12
Mercury (mg/kg)	< 0.092	< 0.11	< 0.091	< 0.097	< 0.10	< 0.094	< 0.10
Selenium (mg/kg)	1.6	1.0	0.27	1.6	1.4	0.28	2.6
Silver (mg/kg)	< 0.28	< 0.32	< 0.27	< 0.29	< 0.31	< 0.28	< 0.32

Horizontal and Vertical Extent of CoC in the soil: Field screening and laboratory analysis of split spoon samples collected during the drilling process indicate soil contamination exists around the used oil UST from near surface down to the water table. All the soil borings were drilled in the used oil UST area due to the fact that there was not any piping or a dispenser associated with the tank.



**TABLE 1
FIELD SCREENING DATA**

Field Screening Number	Total Depth (feet)	Type of Sample Collected	Sample Location
GP01	7	Soil	Soil Sample SS05
GP02	7	Soil	Soil Sample SS06
GP03	7	Soil	Soil Sample SS15
GP04	7	Soil	Soil Sample SS16
GP05	7	Soil	Soil Sample SS07
GP06	12	Ground Water	Fuel Dispenser Area
GP07	12	Ground Water	Fuel Dispenser Area
GP08	12	Ground Water	UST Pit Area
GP09	12	Ground Water	Adjacent to UST Pit
GP10	12	Ground Water	Mullins Brothers Property
GP11	10	Dry	Mullins Brothers Property
GP12	12	Ground Water	Lancaster Cty. Property
GP13	12	Ground Water	Adjacent to Eckerds
GP14	10	Dry	North Main Auto Property
GP15	10	Ground Water	Fox's Pizza Property
GP16	10	Ground Water	Fox's Pizza Property
GP17	10	Ground Water	Fox's Pizza Property
GP18	11	Dry	Funeral Home Property
GP19	11	Dry	Funeral Home Property
GP20	11	Dry	Funeral Home Property
GP21	8	Dry	Mall Parking Lot
GP22	9	Dry	Mall Parking Lot
GP23	8	Dry	Mall Parking Lot
Total	227		

3.2 Soil Assessment

Soil boring activities associated with ground water monitor well installation were performed using a truck-mounted drilling rig equipped with hollow-stem augers. Personnel from South Atlantic Environmental Drilling & Construction Company (SAEDACCO) located in Fort Mill, SC, were responsible for drilling operations. All assessment activities were performed under the supervision of a KSG staff geologist.

Soil samples were collected continuously at five onsite locations using the GeoProbe rig. The soils were field screened to check for the presence of petroleum hydrocarbon contamination using a photoionization detector (PID). Five soil samples were collected from a depth of 7 feet below ground surface from the following locations:

- GeoProbe Location GP01 – Soil Sample SS05
- GeoProbe Location GP02 – Soil Sample SS06
- GeoProbe Location GP03 – Soil Sample SS15
- GeoProbe Location GP04 – Soil Sample SS16
- GeoProbe Location GP05 – Soil Sample SS07

Each soil sample was placed into laboratory-supplied bottles and submitted to Shealy Environmental Services, Inc. for analysis of the following compounds: BTEX + naphthalene using EPA Method 8260B and polynuclear aromatic hydrocarbons (PAHs) using EPA Method 8270C. Laboratory analytical data sheets for each soil sample are provided in Appendix A.

Split spoon samples were collected at 5 foot intervals at each ground water monitor well location from surface until the water table was encountered. Each sample was screened with a portable VOC monitor. Shallow wells were drilled to a total depth of 10-22 feet below ground surface. Two deep, telescoping wells were drilled to a depth of 50 feet. Soil Boring Lithology Logs and Well Construction Summaries are presented in Appendix B.

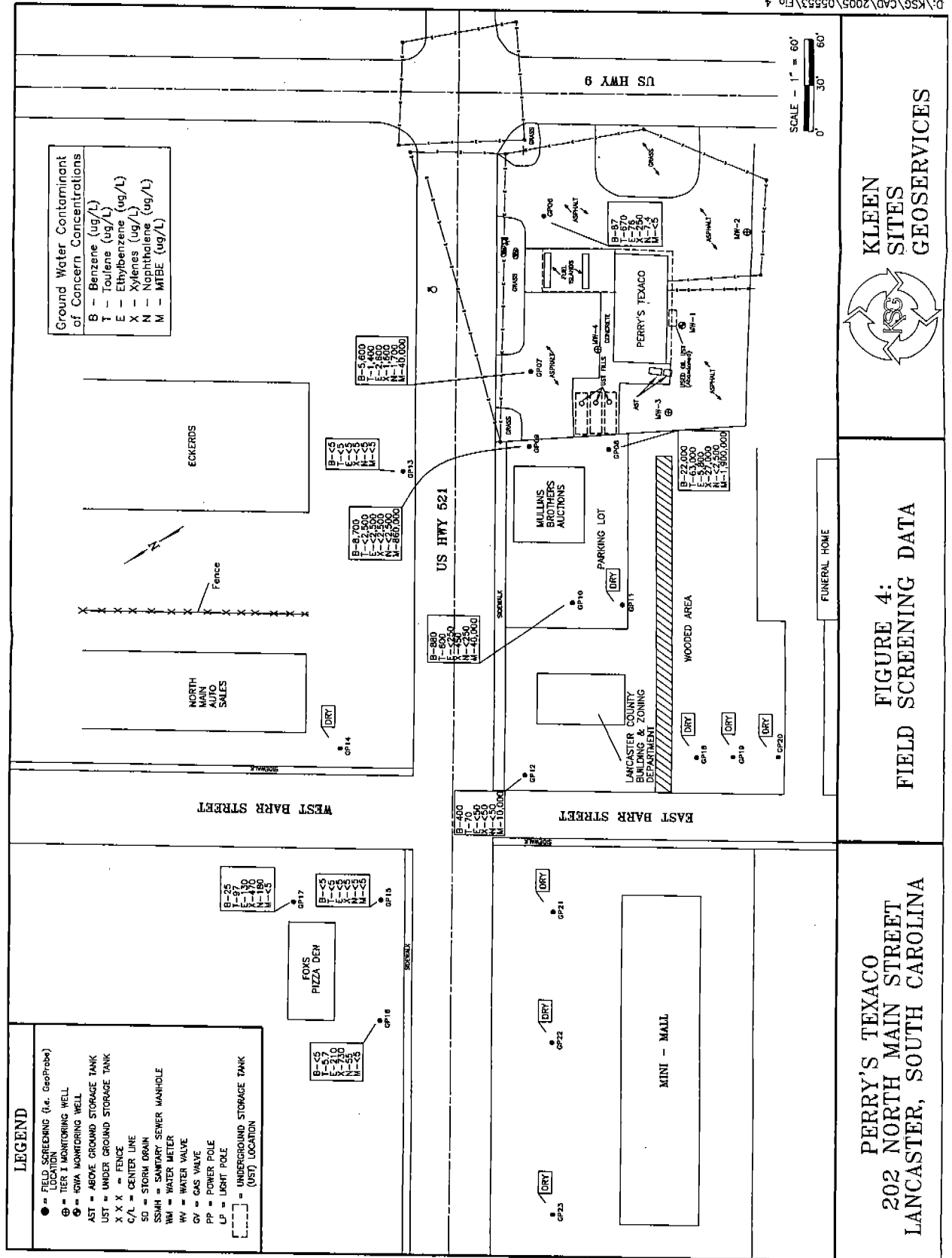
3.3 Soil Analytical Data

The following table summarizes soil analytical results.

TABLE 2
SOIL ANALYTICAL DATA SUMMARY

Chemical of Concern (units)	SS05	SS06	SS07	SS15	SS16
Benzene (µg/kg)	< 2,200	< 270	6,700	< 240	4,500
Ethylbenzene (µg/kg)	7,800	1,600	40,000	1,600	84,000
Naphthalene (µg/kg)	2,600	990	14,000	990	15,000
Toluene (µg/kg)	6,200	2,100	70,000	2,100	27,000
Total Xylenes (µg/kg)	32,000	8,000	150,000	8,100	340,000

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F. Chemicals of Concern – Ground Water

SCDHEC
IFB-35746-4/21/09-EMW
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Well Installation Information

Well #	Installation Date	Development Date	Sampling Date
MW01	05-22-02	05-27-02	05-27-02
MW02	09-03-02	09-06-02	09-06-02
MW03	09-03-02	09-06-02	09-06-02
MW04	09-03-02	09-06-02	09-06-02

Soil Analytical Data for each Monitor Well

Chemical of Concern	MW02	MW03	MW04
Depth of Sample	9 – 11'	9 – 11'	-
Benzene (µg/kg)	N/A	< 4.7	N/A
Toluene (µg/kg)	N/A	< 4.7	N/A
Ethylbenzene (µg/kg)	N/A	< 4.7	N/A
Xylenes (µg/kg)	N/A	< 4.7	N/A
Total BTEX	N/A	< 18.8	N/A
Naphthalene (µg/kg)	N/A	< 4.7	N/A
Benzo(a)anthracene (mg/kg)	N/A	< 0.360	N/A
Benzo(a)fluoranthene (mg/kg)	N/A	< 0.360	N/A
Chrysene (mg/kg)	N/A	< 0.360	N/A
Dibenzanthracene (mg/kg)	N/A	< 0.360	N/A
Fluorene (mg/kg)	N/A	< 0.360	N/A
Phenanthrene (mg/kg)	N/A	< 0.360	N/A
Pyrene (mg/kg)	N/A	< 0.360	N/A
TPH (Method 3550) (mg/kg)	N/A	N/A	N/A
TOC (mg/kg)	260	N/A	N/A

Note: N/A-Not Analyzed

Monitor Well and Ground Water Data Summary

Well #	TOC Elevation (ft.)	Screened Interval (ft.)	Depth to Water (ft.)	Water Table Elevation (ft.)
MW01	494.23	4 – 19	6.60	487.63
MW02	497.88	7 – 22	9.63	488.25
MW03	492.87	9 – 24	12.35	480.52
MW04	493.60	5 - 20	10.44	483.16

SECTION 3.0

SCDHEC
IFB-35746-4/21/09-EMW
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SITE ACTIVITIES

3.1 Static Water Level Measurement

Prior to well purging or sample collection, static water levels were taken to the nearest 0.01 foot using a graduated electronic indicator. All measurements were taken from the surveyed top of the well casing on February 1, 2005 so they could be referenced to a common datum. Static water levels are summarized in Table 1. Ground water flow direction is depicted in Figure 4.

TABLE 1
STATIC WATER LEVEL ELEVATIONS
02/01/05 Field Event

Well ID #	Free Product Thickness	Static Water Level†	Top of Casing Elevation‡	Ground Water Elevation (MSL)
MW-1	none	6.12	494.23	488.11
MW-2	none	7.91	497.88	489.97
MW-3	none	10.95	492.87	481.92
MW-4	none	9.87	493.60	483.73

Notes: † Depth below top of casing, in feet
‡ Feet above mean sea level (msl)

3.4 Static Water Level Measurement

Prior to well development or sample collection, static water levels were taken to the nearest 0.01 foot using a graduated electronic indicator. All measurements were taken from the surveyed top of the well casing so they could be referenced to a common datum. Static water levels are summarized in Table 3. Free product was observed in Well MW05 at a thickness of 0.20 feet.

TABLE 3
STATIC WATER LEVEL ELEVATIONS
(June 2005 Sampling Event)

Well ID #	Static Water Level†	Total Well Depth (feet)	Screened Interval (feet bls)	Free Product Thickness	Top of Casing Elevation‡	Ground Water Elevation‡
MW01	5.00	19.00	4 - 19	ND	494.23	489.23
MW02	8.18	22.00	7 - 22	ND	497.88	489.70
MW03	8.40	24.00	9 - 24	ND	492.87	484.47
MW04	8.70	20.00	5 - 20	ND	493.60	484.90
MW05	8.10	19.00	4 - 19	0.20 feet	490.63	*482.82
MW06	9.30	18.00	3 - 18	ND	488.93	479.63
MW07	13.85	50.00	45 - 50	ND	489.57	475.72
MW08	4.20	15.00	5 - 15	ND	483.00	478.80
MW09	21.85	50.00	45 - 50	ND	483.29	461.44
MW10	6.45	17.00	5 - 17	ND	485.78	479.33
MW11	3.20	10.00	3 - 10	ND	483.66	480.46
MW12	3.80	13.00	3 - 13	ND	484.06	480.26
MW13	2.30	12.00	2 - 12	ND	486.96	484.66
MW14	5.26	14.00	4 - 14	ND	485.24	479.98
MW15	5.70	18.00	3 - 18	ND	489.69	483.99
MW16	6.02	15.00	5 - 15	ND	496.49	490.47
MW17	10.70	22.00	7 - 22	ND	493.77	483.07
MW18	13.10	23.00	8 - 23	ND	489.37	476.27
MW19	2.60	9.00	4 - 9	ND	473.74	471.14

Notes: † = Depth below top of casing, in feet
ND = Not Detected
‡ = Elevation (feet above mean sea level)
* = Adjusted for the presence of free product

TABLE 2
STATIC WATER LEVEL ELEVATIONS
 (December 2005 / January 2006 Sampling Event)

Well ID #	Static Water Level†	Total Well Depth (feet)	Screened Interval (feet bls)	Free Product Thickness	Top of Casing Elevation‡	Ground Water Elevation‡
MW01	4.32	19.00	4 - 19	ND	494.23	489.91
MW02	6.52	22.00	7 - 22	ND	497.88	491.36
MW03	11.47	24.00	9 - 24	ND	492.87	481.40
MW04	9.51	20.00	5 - 20	0.05 feet	493.60	* 484.13
MW05	10.80	19.00	4 - 19	0.70 feet	490.63	* 480.36
MW06	7.89	18.00	3 - 18	ND	488.93	481.04
MW07	13.95	50.00	45 - 50	ND	489.57	475.62
MW08	4.22	15.00	5 - 15	ND	483.00	478.78
MW09	7.65	50.00	45 - 50	ND	483.29	475.64
MW10	3.41	17.00	5 - 17	ND	485.78	482.37
MW11	3.12	10.00	3 - 10	ND	483.66	480.54
MW12	1.02	13.00	3 - 13	ND	484.06	483.04
MW13	3.87	12.00	2 - 12	ND	486.96	483.09
MW14	4.28	14.00	4 - 14	ND	485.24	481.37
MW15	7.12	18.00	3 - 18	ND	489.69	482.57
MW16	5.24	15.00	5 - 15	ND	496.49	491.25
MW17	12.41	22.00	7 - 22	ND	493.77	481.36
MW18	12.11	23.00	8 - 23	ND	489.37	477.26
MW19	2.93	9.00	4 - 9	ND	473.74	470.81
MW20	4.60	20.00	5 - 20	ND	503.44	498.84
MW21	2.10	20.00	5 - 20	ND	502.82	500.72
MW22	7.10	23.00	8 - 23	ND	503.21	496.11
MW23	2.75	20.00	5 - 20	ND	491.54	488.79
MW24	4.66	20.00	5 - 20	ND	485.74	481.08
MW25	3.45	13.00	3 - 13	ND	480.24	476.79
MW26	4.30	10.00	5 - 10	ND	467.86	463.56
MW27	3.12	15.00	5 - 15	ND	457.56	454.44
MW28	26.75	97.00	92 - 97	ND	480.32	453.57
MW29	52.20	60.00	50 - 60	ND	480.30	428.10
MW30	3.90	94.00	89 - 94	ND	483.40	479.50
MW31	55.25	85.00	80 - 85	ND	491.22	435.97
MW32	14.90	25.00	10 - 25	ND	503.71	488.81

Notes: † = Depth below top of casing, in feet
 ND = Not Detected
 ‡ = Elevation (feet above mean sea level)
 * = Adjusted for the presence of free product

AFVR & Groundwater Sampling Event
Perry's North Main Texaco

Lancaster, South Carolina

TABLE 1
STATIC WATER LEVEL ELEVATIONS
(March 2008 Sampling Event)

Well ID #	Static Water Level†	Total Well Depth (feet)	Screened Interval (feet bls)	Free Product Thickness	Top of Casing Elevation‡	Ground Water Elevation‡
MW01	4.67	19.00	4 - 19	ND	494.23	489.56
MW02	7.43	22.00	7 - 22	ND	497.88	490.45
MW03	11.51	24.00	9 - 24	ND	492.87	481.36
MW04	9.63	20.00	5 - 20	0.02 feet	493.60	*483.98
MW05	10.36	19.00	4 - 19	0.76 feet	490.63	*480.85
MW06	7.87	18.00	3 - 18	ND	488.93	481.06
MW07	9.22	50.00	45 - 50	ND	489.57	480.35
MW08	5.14	15.00	5 - 15	ND	483.00	477.86
MW09	4.96	50.00	45 - 50	ND	483.29	478.33
MW10	5.22	17.00	5 - 17	ND	485.78	480.56
MW11	3.13	10.00	3 - 10	ND	483.66	480.53
MW12	2.64	13.00	3 - 13	ND	484.06	481.42
MW13	2.89	12.00	2 - 12	ND	486.96	484.07
MW14	4.69	14.00	4 - 14	ND	485.24	480.55
MW15	6.72	18.00	3 - 18	ND	489.69	482.97
MW16	5.58	15.00	5 - 15	ND	496.49	490.91
MW17	12.42	22.00	7 - 22	ND	493.77	481.35
MW18	14.02	23.00	8 - 23	ND	489.37	475.35
MW19	2.75	9.00	4 - 9	ND	473.74	470.99
MW20	5.84	20.00	5 - 20	ND	503.44	497.60
MW21	5.17	20.00	5 - 20	ND	502.82	497.65
MW22	8.12	23.00	8 - 23	ND	503.21	495.09
MW23	5.14	20.00	5 - 20	ND	491.54	486.40
MW24	5.27	20.00	5 - 20	ND	485.74	480.47
MW25	4.12	13.00	3 - 13	ND	480.24	476.12
MW26	3.70	10.00	5 - 10	ND	467.86	464.16
MW27	2.75	15.00	5 - 15	ND	457.56	454.81
MW28	6.17	97.00	92 - 97	ND	480.32	474.15
MW29	6.28	60.00	50 - 60	ND	480.30	474.02
MW30	4.81	94.00	89 - 94	ND	483.40	478.59
MW31	8.45	85.00	80 - 85	ND	491.22	482.77
MW32	15.16	25.00	10 - 25	ND	503.71	488.55

Notes: † = Depth below top of casing, in feet
 ND = Not Detected
 ‡ = Elevation (feet above mean sea level)
 * = Adjusted for the presence of free product

TABLE 1
STATIC WATER LEVEL ELEVATIONS
(December 2008 Sampling Event)

Well ID #	Static Water Level†	Total Well Depth (feet)	Screened Interval (feet bls)	Free Product Thickness	Top of Casing Elevation‡	Ground Water Elevation‡
MW01	4.98	19.00	4 - 19	ND	494.23	489.25
MW02	7.58	22.00	7 - 22	ND	497.88	490.30
MW03	11.71	24.00	9 - 24	ND	492.87	481.16
MW04	9.70	20.00	5 - 20	ND	493.60	483.90
MW05	10.11	19.00	4 - 19	0.34 feet	490.63	*480.78
MW06	7.87	18.00	3 - 18	ND	488.93	481.06
MW07	13.01	50.00	45 - 50	ND	489.57	476.56
MW08	5.87	15.00	5 - 15	0.31 feet	483.00	*477.36
MW09	5.19	50.00	45 - 50	ND	483.29	478.10
MW10	4.16	17.00	5 - 17	ND	485.78	481.62
MW11	2.18	10.00	3 - 10	ND	483.66	481.48
MW12	2.01	13.00	3 - 13	ND	484.06	482.05
MW13	3.19	12.00	2 - 12	ND	486.96	483.77
MW14	5.17	14.00	4 - 14	ND	485.24	480.07
MW15	5.87	18.00	3 - 18	ND	489.69	483.82
MW16	5.16	15.00	5 - 15	ND	496.49	491.33
MW17	13.09	22.00	7 - 22	ND	493.77	480.68
MW18	14.68	23.00	8 - 23	ND	489.37	474.69
MW19	2.63	9.00	4 - 9	ND	473.74	471.11
MW20	5.11	20.00	5 - 20	ND	503.44	498.33
MW21	5.08	20.00	5 - 20	ND	502.82	497.74
MW22	8.47	23.00	8 - 23	ND	503.21	494.74
MW23	5.12	20.00	5 - 20	ND	491.54	486.42
MW24	3.27	20.00	5 - 20	ND	485.74	482.47
MW25	3.88	13.00	3 - 13	ND	480.24	476.36
MW26	4.57	10.00	5 - 10	ND	467.86	463.29
MW27	5.81	15.00	5 - 15	ND	457.56	451.75
MW28	4.18	97.00	92 - 97	ND	480.32	476.14
MW29	4.24	60.00	50 - 60	ND	480.30	476.06
MW30	5.14	94.00	89 - 94	ND	483.40	478.26
MW31	6.15	85.00	80 - 85	ND	491.22	485.07
MW32	15.99	25.00	10 - 25	ND	503.71	487.72

Notes: † = Depth below top of casing, in feet
 ND = Not Detected
 ‡ = Elevation (feet above mean sea level)
 * = Adjusted for the presence of free product

3.4 Groundwater Analytical Data

The following table summarizes groundwater analytical results.

TABLE 2
GROUNDWATER ANALYTICAL DATA SUMMARY

Chemical of Concern (units)	MW01	MW01	MW01	MW01	MW01
Benzene (µg/l)	1.3	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	15
Naphthalene (µg/l)	< 5.0	< 5.0	< 5.0	6.9	8.8
Toluene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Xylenes (µg/l)	< 10.0	< 5.0	< 5.0	< 5.0	< 5.0
EDB (µg/l)	< 0.02	< 0.019	N/A	N/A	N/A
Nitrate (mg/l)	N/A	N/A	N/A	N/A	N/A
Sulfate (mg/l)	N/A	N/A	N/A	N/A	N/A
Ferrous iron (mg/l)	N/A	N/A	N/A	N/A	N/A
Lead (mg/l)	0.006	< 0.003	< 0.003	N/A	N/A
Methane (µg/l)	N/A	N/A	N/A	N/A	N/A
Diisopropyl ether (µg/l)	N/A	N/A	N/A	N/A	< 1.0
Ethanol (µg/l)	N/A	N/A	N/A	N/A	< 100
Ethyl tert-butyl alcohol (µg/l)	N/A	N/A	N/A	N/A	< 20
Ethyl tert-butyl ether (µg/l)	N/A	N/A	N/A	N/A	< 1.0
Tert-Amyl alcohol (µg/l)	N/A	N/A	N/A	N/A	< 20
Tert-Amyl methyl ether (µg/l)	N/A	N/A	N/A	N/A	1.7
Tert-Butyl alcohol (µg/l)	N/A	N/A	N/A	N/A	< 20
Tert-Butyl formate (µg/l)	N/A	N/A	N/A	N/A	< 5.0
Dissolved Oxygen (mg/l)	4.1	2.9	N/A	N/A	N/A
Sample Date	02/01/05	06/23/05	12/23/05	03/04/08	12/10/08

N/A – Not Analyzed

TABLE 2
GROUNDWATER ANALYTICAL DATA SUMMARY (continued)

Chemical of Concern (units)	MW02	MW02	MW02	MW02	MW02
Benzene (µg/l)	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Naphthalene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene (µg/l)	< 5.0	< 5.0	15	< 5.0	< 5.0
Total Xylenes (µg/l)	< 10.0	< 5.0	21	< 5.0	< 5.0
EDB (µg/l)	< 0.02	< 0.019	N/A	N/A	N/A
Nitrate (mg/l)	N/A	N/A	N/A	N/A	N/A
Sulfate (mg/l)	N/A	N/A	N/A	N/A	N/A
Ferrous iron (mg/l)	N/A	N/A	N/A	N/A	N/A
Lead (mg/l)	0.008	0.0034	0.014	N/A	N/A
Methane (µg/l)	N/A	N/A	N/A	N/A	N/A
Diisopropyl ether (µg/l)	N/A	N/A	N/A	N/A	< 1.0
Ethanol (µg/l)	N/A	N/A	N/A	N/A	< 100
Ethyl tert-butyl alcohol (µg/l)	N/A	N/A	N/A	N/A	< 20
Ethyl tert-butyl ether (µg/l)	N/A	N/A	N/A	N/A	< 1.0
Tert-Amyl alcohol (µg/l)	N/A	N/A	N/A	N/A	< 20
Tert-Amyl methyl ether (µg/l)	N/A	N/A	N/A	N/A	< 1.0
Tert-Butyl alcohol (µg/l)	N/A	N/A	N/A	N/A	< 20
Tert-Butyl formate (µg/l)	N/A	N/A	N/A	N/A	< 5.0
Dissolved Oxygen (mg/l)	4.6	3.6	3.0	N/A	N/A
Sample Date	02/01/05	06/23/05	01/05/06	03/04/08	12/09/08

N/A – Not Analyzed

TABLE 2
GROUNDWATER ANALYTICAL DATA SUMMARY (continued)

Chemical of Concern (units)	MW03	MW03	MW03	MW03	MW03
Benzene (µg/l)	380	9.7	120	< 50	480
Ethylbenzene (µg/l)	30	< 5.0	< 5.0	< 50	< 100
MTBE (µg/l)	14,000	310	1,500	2,600	4,200
Naphthalene (µg/l)	< 100	< 5.0	< 5.0	55	< 100
Toluene (µg/l)	< 20	< 5.0	< 5.0	< 50	< 100
Total Xylenes (µg/l)	70	< 5.0	< 5.0	< 50	< 100
EDB (µg/l)	< 0.02	< 0.02	N/A	N/A	N/A
Nitrate (mg/l)	N/A	N/A	N/A	N/A	N/A
Sulfate (mg/l)	N/A	N/A	N/A	N/A	N/A
Ferrous iron (mg/l)	N/A	N/A	N/A	N/A	N/A
Lead (mg/l)	0.012	< 0.003	< 0.003	N/A	N/A
Methane (µg/l)	N/A	N/A	N/A	N/A	N/A
Diisopropyl ether (µg/l)	N/A	N/A	N/A	N/A	36
Ethanol (µg/l)	N/A	N/A	N/A	N/A	< 100
Ethyl tert-butyl alcohol (µg/l)	N/A	N/A	N/A	N/A	< 20
Ethyl tert-butyl ether (µg/l)	N/A	N/A	N/A	N/A	< 1.0
Tert-Amyl alcohol (µg/l)	N/A	N/A	N/A	N/A	< 20
Tert-Amyl methyl ether (µg/l)	N/A	N/A	N/A	N/A	140
Tert-Butyl alcohol (µg/l)	N/A	N/A	N/A	N/A	180
Tert-Butyl formate (µg/l)	N/A	N/A	N/A	N/A	< 5.0
Dissolved Oxygen (mg/l)	2.4	3.8	N/A	N/A	N/A
Sample Date	02/01/05	06/23/05	12/23/05	03/04/08	12/09/08

TABLE 2
GROUNDWATER ANALYTICAL DATA SUMMARY (continued)

Chemical of Concern (units)	MW04	MW04	MW04	MW04	MW04
Benzene (µg/l)	1,300	10,000	N/S	N/S	3,400
Ethylbenzene (µg/l)	370	5,700	-	-	2,300
MTBE (µg/l)	2,400	420,000	-	-	48,000
Naphthalene (µg/l)	73	3,000	-	-	< 1,000
Toluene (µg/l)	1,100	38,000	-	-	< 1,000
Total Xylenes (µg/l)	1,800	28,000	-	-	7,600
EDB (µg/l)	< 0.02	< 0.019	-	-	N/A
Nitrate (mg/l)	N/A	< 0.02	-	-	N/A
Sulfate (mg/l)	N/A	1.2	-	-	N/A
Ferrous iron (mg/l)	N/A	6.4	-	-	N/A
Lead (mg/l)	0.013	0.004	-	-	N/A
Methane (µg/l)	N/A	2,100	-	-	N/A
Diisopropyl ether (µg/l)	N/A	N/A	N/A	N/A	450
Ethanol (µg/l)	N/A	N/A	N/A	N/A	< 20,000
Ethyl tert-butyl alcohol (µg/l)	N/A	N/A	N/A	N/A	< 4,000
Ethyl tert-butyl ether (µg/l)	N/A	N/A	N/A	N/A	< 200
Tert-Amyl alcohol (µg/l)	N/A	N/A	N/A	N/A	< 4,000
Tert-Amyl methyl ether (µg/l)	N/A	N/A	N/A	N/A	1,600
Tert-Butyl alcohol (µg/l)	N/A	N/A	N/A	N/A	< 4,000
Tert-Butyl formate (µg/l)	N/A	N/A	N/A	N/A	< 1,000
Dissolved Oxygen (mg/l)	2.9	2.1	-	-	N/A
Sample Date	02/01/05	06/23/05	12/23/05	03/04/08	12/10/08

N/A – Not Analyzed

N/S – Not sampled due to the presence of free product

TABLE 2
GROUNDWATER ANALYTICAL DATA SUMMARY (continued)

Chemical of Concern (units)	MW05	MW05	MW05	MW05		
Benzene (µg/l)	N/S	N/S	N/S	N/S		
Ethylbenzene (µg/l)	-	-	-	-		
MTBE (µg/l)	-	-	-	-		
Naphthalene (µg/l)	-	-	-	-		
Toluene (µg/l)	-	-	-	-		
Total Xylenes (µg/l)	-	-	-	-		
EDB (µg/l)	-	-	-	-		
Nitrate (mg/l)	-	-	-	-		
Sulfate (mg/l)	-	-	-	-		
Ferrous iron (mg/l)	-	-	-	-		
Lead (mg/l)	-	-	-	-		
Methane (µg/l)	-	-	-	-		
Diisopropyl ether (µg/l)	-	-	-	-		
Ethanol (µg/l)	-	-	-	-		
Ethyl tert-butyl alcohol (µg/l)	-	-	-	-		
Ethyl tert-butyl ether (µg/l)	-	-	-	-		
Tert-Amyl alcohol (µg/l)	-	-	-	-		
Tert-Amyl methyl ether (µg/l)	-	-	-	-		
Tert-Butyl alcohol (µg/l)	-	-	-	-		
Tert-Butyl formate (µg/l)	-	-	-	-		
Dissolved Oxygen (mg/l)	-	-	-	-		
Sample Date	06/21/05	12/23/05	03/04/08	12/09/08		

N/A – Not Analyzed

N/S – Not sampled due to the presence of free product

TABLE 2
GROUNDWATER ANALYTICAL DATA SUMMARY (continued)

Chemical of Concern (units)	MW06	MW06	MW06	MW06		
Benzene (µg/l)	16,000	16,000	11,000	11,000		
Ethylbenzene (µg/l)	3,300	< 5,000	< 5000	3,800		
MTBE (µg/l)	1,400,000	7,000,000	200,000	200,000		
Naphthalene (µg/l)	< 1,000	< 5,000	< 5000	< 2,500		
Toluene (µg/l)	22,000	14,000	10,000	< 2,500		
Total Xylenes (µg/l)	14,000	16,000	15,000	6,700		
EDB (µg/l)	< 0.019	N/A	N/A	N/A		
Nitrate (mg/l)	< 0.02	< 0.02	N/A	N/A		
Sulfate (mg/l)	55	12	N/A	N/A		
Ferrous iron (mg/l)	28	33	N/A	N/A		
Lead (mg/l)	0.07	0.0054	N/A	N/A		
Methane (µg/l)	7,000	N/A	N/A	N/A		
Diisopropyl ether (µg/l)	N/A	N/A	N/A	1,100		
Ethanol (µg/l)	N/A	N/A	N/A	< 50,000		
Ethyl tert-butyl alcohol (µg/l)	N/A	N/A	N/A	< 10,000		
Ethyl tert-butyl ether (µg/l)	N/A	N/A	N/A	< 500		
Tert-Amyl alcohol (µg/l)	N/A	N/A	N/A	< 10,000		
Tert-Amyl methyl ether (µg/l)	N/A	N/A	N/A	5,500		
Tert-Butyl alcohol (µg/l)	N/A	N/A	N/A	< 10,000		
Tert-Butyl formate (µg/l)	N/A	N/A	N/A	< 2,500		
Dissolved Oxygen (mg/l)	3.5	N/A	N/A	N/A		
Sample Date	06/23/05	12/23/05	03/04/08	12/10/08		

N/A – Not Analyzed

TABLE 2
GROUNDWATER ANALYTICAL DATA SUMMARY (continued)

Chemical of Concern (units)	MW07	MW07	MW07	MW07		
Benzene (µg/l)	5,200	1,100	< 5000	< 2,500		
Ethylbenzene (µg/l)	610	160	< 5000	< 2,500		
MTBE (µg/l)	850,000	190,000	150,000	200,000		
Naphthalene (µg/l)	< 500	< 50	< 5000	< 2,500		
Toluene (µg/l)	4,200	1,100	< 5000	< 2,500		
Total Xylenes (µg/l)	2,100	650	< 5000	< 2,500		
EDB (µg/l)	< 0.02	N/A	N/A	N/A		
Nitrate (mg/l)	0.035	0.068	N/A	N/A		
Sulfate (mg/l)	110	65	N/A	N/A		
Ferrous iron (mg/l)	4.0	0.096	N/A	N/A		
Lead (mg/l)	0.063	< 0.003	N/A	N/A		
Methane (µg/l)	210	N/A	N/A	N/A		
Diisopropyl ether (µg/l)	N/A	N/A	N/A	< 500		
Ethanol (µg/l)	N/A	N/A	N/A	< 50,000		
Ethyl tert-butyl alcohol (µg/l)	N/A	N/A	N/A	< 10,000		
Ethyl tert-butyl ether (µg/l)	N/A	N/A	N/A	< 500		
Tert-Amyl alcohol (µg/l)	N/A	N/A	N/A	< 10,000		
Tert-Amyl methyl ether (µg/l)	N/A	N/A	N/A	2,300		
Tert-Butyl alcohol (µg/l)	N/A	N/A	N/A	< 10,000		
Tert-Butyl formate (µg/l)	N/A	N/A	N/A	< 2,500		
Dissolved Oxygen (mg/l)	2.8	3.1	3.4	3.3		
Sample Date	06/24/05	01/09/06	03/04/08	12/10/08		

N/A – Not Analyzed

TABLE 2
GROUNDWATER ANALYTICAL DATA SUMMARY (continued)

Chemical of Concern (units)	MW08	MW08	MW08	MW08		
Benzene (µg/l)	9,100	4,800	7,700	N/S		
Ethylbenzene (µg/l)	< 500	1,300	< 5000	-		
MTBE (µg/l)	340,000	310,000	170,000	-		
Naphthalene (µg/l)	170	< 500	< 5,000	-		
Toluene (µg/l)	820	8,000	27,000	-		
Total Xylenes (µg/l)	660	5,700	21,000	-		
EDB (µg/l)	< 0.02	N/A	N/A	-		
Nitrate (mg/l)	N/A	< 0.020	N/A	-		
Sulfate (mg/l)	N/A	< 1.0	N/A	-		
Ferrous iron (mg/l)	N/A	40	N/A	-		
Lead (mg/l)	0.026	0.015	N/A	-		
Methane (µg/l)	N/A	N/A	N/A	-		
Diisopropyl ether (µg/l)	N/A	N/A	N/A	-		
Ethanol (µg/l)	N/A	N/A	N/A	-		
Ethyl tert-butyl alcohol (µg/l)	N/A	N/A	N/A	-		
Ethyl tert-butyl ether (µg/l)	N/A	N/A	N/A	-		
Tert-Amyl alcohol (µg/l)	N/A	N/A	N/A	-		
Tert-Amyl methyl ether (µg/l)	N/A	N/A	N/A	-		
Tert-Butyl alcohol (µg/l)	N/A	N/A	N/A	-		
Tert-Butyl formate (µg/l)	N/A	N/A	N/A	-		
Dissolved Oxygen (mg/l)	3.7	3.6	N/A	-		
Sample Date	06/24/05	01/05/06	03/06/08	12/09/08		

N/A – Not Analyzed

N/S – Not sampled due to the presence of free product

TABLE 2
GROUNDWATER ANALYTICAL DATA SUMMARY (continued)

Chemical of Concern (units)	MW09	MW09	MW09	MW09		
Benzene (µg/l)	700	160	< 250	< 100		
Ethylbenzene (µg/l)	< 250	80	< 250	< 100		
MTBE (µg/l)	2,500	9,800	4,900	6,100		
Naphthalene (µg/l)	< 250	< 50	< 250	< 100		
Toluene (µg/l)	270	360	< 250	100		
Total Xylenes (µg/l)	< 250	380	320	160		
EDB (µg/l)	< 0.02	N/A	N/A	N/A		
Nitrate (mg/l)	N/A	0.058	N/A	N/A		
Sulfate (mg/l)	N/A	150	N/A	N/A		
Ferrous iron (mg/l)	N/A	0.21	N/A	N/A		
Lead (mg/l)	0.062	< 0.003	N/A	N/A		
Methane (µg/l)	N/A	N/A	N/A	N/A		
Diisopropyl ether (µg/l)	N/A	N/A	N/A	< 20		
Ethanol (µg/l)	N/A	N/A	N/A	< 2000		
Ethyl tert-butyl alcohol (µg/l)	N/A	N/A	N/A	< 400		
Ethyl tert-butyl ether (µg/l)	N/A	N/A	N/A	< 20		
Tert-Amyl alcohol (µg/l)	N/A	N/A	N/A	< 400		
Tert-Amyl methyl ether (µg/l)	N/A	N/A	N/A	180		
Tert-Butyl alcohol (µg/l)	N/A	N/A	N/A	< 400		
Tert-Butyl formate (µg/l)	N/A	N/A	N/A	< 100		
Dissolved Oxygen (mg/l)	4.0	4.1	4.0	4.2		
Sample Date	06/24/05	01/06/06	03/06/08	12/10/08		

N/A – Not Analyzed

TABLE 2
GROUNDWATER ANALYTICAL DATA SUMMARY (continued)

Chemical of Concern (units)	MW10	MW10	MW10	MW10		
Benzene (µg/l)	7,700	8,200	< 2500	< 1000		
Ethylbenzene (µg/l)	1,300	2,600	< 2500	< 1000		
MTBE (µg/l)	46,000	33,000	42,000	35,000		
Naphthalene (µg/l)	430	400	< 2500	< 1000		
Toluene (µg/l)	8,400	14,000	< 2500	< 1000		
Total Xylenes (µg/l)	8,000	11,000	2,800	< 1000		
EDB (µg/l)	< 0.019	N/A	N/A	N/A		
Nitrate (mg/l)	N/A	< 0.020	N/A	N/A		
Sulfate (mg/l)	N/A	< 1.0	N/A	N/A		
Ferrous iron (mg/l)	N/A	12	N/A	N/A		
Lead (mg/l)	0.0048	0.0049	N/A	N/A		
Methane (µg/l)	N/A	N/A	N/A	N/A		
Diisopropyl ether (µg/l)	N/A	N/A	N/A	200		
Ethanol (µg/l)	N/A	N/A	N/A	< 20,000		
Ethyl tert-butyl alcohol (µg/l)	N/A	N/A	N/A	< 4000		
Ethyl tert-butyl ether (µg/l)	N/A	N/A	N/A	< 200		
Tert-Amyl alcohol (µg/l)	N/A	N/A	N/A	< 4000		
Tert-Amyl methyl ether (µg/l)	N/A	N/A	N/A	2,200		
Tert-Butyl alcohol (µg/l)	N/A	N/A	N/A	< 4000		
Tert-Butyl formate (µg/l)	N/A	N/A	N/A	< 1000		
Dissolved Oxygen (mg/l)	2.9	2.5	N/A	4.2		
Sample Date	06/21/05	01/05/06	03/05/08	12/10/08		

N/A – Not Analyzed

TABLE 2
GROUNDWATER ANALYTICAL DATA SUMMARY (continued)

Chemical of Concern (units)	MW11	MW11	MW11	MW11		
Benzene (µg/l)	< 5.0	< 5.0	6.5	< 5.0		
Ethylbenzene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
MTBE (µg/l)	260	170	120	110		
Naphthalene (µg/l)	< 5.0	5.0	5.2	< 5.0		
Toluene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
Total Xylenes (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
EDB (µg/l)	< 0.019	N/A	N/A	N/A		
Nitrate (mg/l)	N/A	N/A	N/A	N/A		
Sulfate (mg/l)	N/A	N/A	N/A	N/A		
Ferrous iron (mg/l)	N/A	N/A	N/A	N/A		
Lead (mg/l)	0.051	< 0.003	N/A	N/A		
Methane (µg/l)	N/A	N/A	N/A	N/A		
Diisopropyl ether (µg/l)	N/A	N/A	N/A	21		
Ethanol (µg/l)	N/A	N/A	N/A	< 100		
Ethyl tert-butyl alcohol (µg/l)	N/A	N/A	N/A	< 20		
Ethyl tert-butyl ether (µg/l)	N/A	N/A	N/A	< 1.0		
Tert-Amyl alcohol (µg/l)	N/A	N/A	N/A	27		
Tert-Amyl methyl ether (µg/l)	N/A	N/A	N/A	16		
Tert-Butyl alcohol (µg/l)	N/A	N/A	N/A	< 20		
Tert-Butyl formate (µg/l)	N/A	N/A	N/A	< 5.0		
Dissolved Oxygen (mg/l)	4.0	N/A	N/A	3.9		
Sample Date	06/21/05	12/23/05	03/05/08	12/10/08		

N/A – Not Analyzed

TABLE 2
GROUNDWATER ANALYTICAL DATA SUMMARY (continued)

Chemical of Concern (units)	MW12	MW12	MW12	MW12		
Benzene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
Ethylbenzene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
MTBE (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
Naphthalene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
Toluene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
Total Xylenes (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
EDB (µg/l)	< 0.02	N/A	N/A	N/A		
Nitrate (mg/l)	N/A	N/A	N/A	N/A		
Sulfate (mg/l)	N/A	N/A	N/A	N/A		
Ferrous iron (mg/l)	N/A	N/A	N/A	N/A		
Lead (mg/l)	0.021	0.017	N/A	N/A		
Methane (µg/l)	N/A	N/A	N/A	N/A		
Diisopropyl ether (µg/l)	N/A	N/A	N/A	< 1.0		
Ethanol (µg/l)	N/A	N/A	N/A	< 100		
Ethyl tert-butyl alcohol (µg/l)	N/A	N/A	N/A	< 20		
Ethyl tert-butyl ether (µg/l)	N/A	N/A	N/A	< 1.0		
Tert-Amyl alcohol (µg/l)	N/A	N/A	N/A	< 20		
Tert-Amyl methyl ether (µg/l)	N/A	N/A	N/A	< 1.0		
Tert-Butyl alcohol (µg/l)	N/A	N/A	N/A	< 20		
Tert-Butyl formate (µg/l)	N/A	N/A	N/A	< 5.0		
Dissolved Oxygen (mg/l)	3.8	4.2	4.4	4.3		
Sample Date	06/21/05	01/05/06	03/04/08	12/10/08		

N/A – Not Analyzed

TABLE 2
GROUNDWATER ANALYTICAL DATA SUMMARY (continued)

Chemical of Concern (units)	MW13	MW13	MW13	MW13		
Benzene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
Ethylbenzene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
MTBE (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
Naphthalene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
Toluene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
Total Xylenes (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
EDB (µg/l)	< 0.02	N/A	N/A	N/A		
Nitrate (mg/l)	N/A	N/A	N/A	N/A		
Sulfate (mg/l)	N/A	N/A	N/A	N/A		
Ferrous iron (mg/l)	N/A	N/A	N/A	N/A		
Lead (mg/l)	< 0.003	< 0.003	N/A	N/A		
Methane (µg/l)	N/A	N/A	N/A	N/A		
Diisopropyl ether (µg/l)	N/A	N/A	N/A	< 1.0		
Ethanol (µg/l)	N/A	N/A	N/A	< 100		
Ethyl tert-butyl alcohol (µg/l)	N/A	N/A	N/A	< 20		
Ethyl tert-butyl ether (µg/l)	N/A	N/A	N/A	< 1.0		
Tert-Amyl alcohol (µg/l)	N/A	N/A	N/A	< 20		
Tert-Amyl methyl ether (µg/l)	N/A	N/A	N/A	< 1.0		
Tert-Butyl alcohol (µg/l)	N/A	N/A	N/A	< 20		
Tert-Butyl formate (µg/l)	N/A	N/A	N/A	< 5.0		
Dissolved Oxygen (mg/l)	4.2	N/A	N/A	N/A		
Sample Date	06/21/05	12/23/05	03/05/08	12/10/08		

N/A – Not Analyzed

TABLE 2
GROUNDWATER ANALYTICAL DATA SUMMARY (continued)

Chemical of Concern (units)	MW14	MW14	MW14	MW14		
Benzene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
Ethylbenzene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
MTBE (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
Naphthalene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
Toluene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
Total Xylenes (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
EDB (µg/l)	< 0.02	N/A	N/A	N/A		
Nitrate (mg/l)	N/A	N/A	N/A	N/A		
Sulfate (mg/l)	N/A	N/A	N/A	N/A		
Ferrous iron (mg/l)	N/A	N/A	N/A	N/A		
Lead (mg/l)	0.0096	0.0098	N/A	N/A		
Methane (µg/l)	N/A	N/A	N/A	N/A		
Diisopropyl ether (µg/l)	N/A	N/A	N/A	< 1.0		
Ethanol (µg/l)	N/A	N/A	N/A	< 100		
Ethyl tert-butyl alcohol (µg/l)	N/A	N/A	N/A	< 20		
Ethyl tert-butyl ether (µg/l)	N/A	N/A	N/A	< 1.0		
Tert-Amyl alcohol (µg/l)	N/A	N/A	N/A	< 20		
Tert-Amyl methyl ether (µg/l)	N/A	N/A	N/A	< 1.0		
Tert-Butyl alcohol (µg/l)	N/A	N/A	N/A	< 20		
Tert-Butyl formate (µg/l)	N/A	N/A	N/A	< 5.0		
Dissolved Oxygen (mg/l)	3.6	N/A	N/A	N/A		
Sample Date	06/21/05	01/05/06	03/05/08	12/10/08		

TABLE 2
GROUNDWATER ANALYTICAL DATA SUMMARY (continued)

Chemical of Concern (units)	MW15	MW15	MW15	MW15		
Benzene (µg/l)	< 2,500	3,800	530	520		
Ethylbenzene (µg/l)	110	360	< 500	< 250		
MTBE (µg/l)	22,000	71,000	15,000	8,200		
Naphthalene (µg/l)	27	120	< 500	< 250		
Toluene (µg/l)	< 2,500	1,200	< 500	< 250		
Total Xylenes (µg/l)	220	910	< 500	< 250		
EDB (µg/l)	< 0.02	N/A	N/A	N/A		
Nitrate (mg/l)	< 0.02	< 0.02	N/A	N/A		
Sulfate (mg/l)	14	< 1.0	N/A	N/A		
Ferrous iron (mg/l)	14	7.0	N/A	N/A		
Lead (mg/l)	0.015	< 0.003	N/A	N/A		
Methane (µg/l)	240	N/A	N/A	N/A		
Diisopropyl ether (µg/l)	N/A	N/A	N/A	64		
Ethanol (µg/l)	N/A	N/A	N/A	< 5,000		
Ethyl tert-butyl alcohol (µg/l)	N/A	N/A	N/A	< 1,000		
Ethyl tert-butyl ether (µg/l)	N/A	N/A	N/A	< 50		
Tert-Amyl alcohol (µg/l)	N/A	N/A	N/A	< 1,000		
Tert-Amyl methyl ether (µg/l)	N/A	N/A	N/A	270		
Tert-Butyl alcohol (µg/l)	N/A	N/A	N/A	< 1,000		
Tert-Butyl formate (µg/l)	N/A	N/A	N/A	< 250		
Dissolved Oxygen (mg/l)	3.8	N/A	N/A	N/A		
Sample Date	06/23/05	12/23/05	03/04/08	12/10/08		

N/A – Not Analyzed

TABLE 2
GROUNDWATER ANALYTICAL DATA SUMMARY (continued)

Chemical of Concern (units)	MW16	MW16	MW16	MW16		
Benzene (µg/l)	2,300	2,300	1,100	1,400		
Ethylbenzene (µg/l)	2,800	3,100	720	690		
MTBE (µg/l)	< 50	390	< 25	< 50		
Naphthalene (µg/l)	360	440	400	360		
Toluene (µg/l)	2,800	1,700	140	120		
Total Xylenes (µg/l)	6,400	7,900	1,400	1,100		
EDB (µg/l)	< 0.02	N/A	N/A	N/A		
Nitrate (mg/l)	< 0.02	< 0.02	N/A	N/A		
Sulfate (mg/l)	5.0	< 1.0	N/A	N/A		
Ferrous iron (mg/l)	16	10	N/A	N/A		
Lead (mg/l)	0.074	0.028	N/A	N/A		
Methane (µg/l)	2,700	N/A	N/A	N/A		
Diisopropyl ether (µg/l)	N/A	N/A	N/A	< 10		
Ethanol (µg/l)	N/A	N/A	N/A	< 1,000		
Ethyl tert-butyl alcohol (µg/l)	N/A	N/A	N/A	< 200		
Ethyl tert-butyl ether (µg/l)	N/A	N/A	N/A	< 10		
Tert-Amyl alcohol (µg/l)	N/A	N/A	N/A	800		
Tert-Amyl methyl ether (µg/l)	N/A	N/A	N/A	< 10		
Tert-Butyl alcohol (µg/l)	N/A	N/A	N/A	< 200		
Tert-Butyl formate (µg/l)	N/A	N/A	N/A	< 50		
Dissolved Oxygen (mg/l)	3.2	N/A	N/A	N/A		
Sample Date	06/23/05	12/23/05	03/04/08	12/10/08		

N/A – Not Analyzed

TABLE 2
GROUNDWATER ANALYTICAL DATA SUMMARY (continued)

Chemical of Concern (units)	MW17	MW17	MW17	MW17		
Benzene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
Ethylbenzene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
MTBE (µg/l)	23	27	43	29		
Naphthalene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
Toluene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
Total Xylenes (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
EDB (µg/l)	< 0.02	N/A	N/A	N/A		
Nitrate (mg/l)	N/A	N/A	N/A	N/A		
Sulfate (mg/l)	N/A	N/A	N/A	N/A		
Ferrous iron (mg/l)	N/A	N/A	N/A	N/A		
Lead (mg/l)	0.026	0.003	N/A	N/A		
Methane (µg/l)	N/A	N/A	N/A	N/A		
Diisopropyl ether (µg/l)	N/A	N/A	N/A	< 1.0		
Ethanol (µg/l)	N/A	N/A	N/A	< 100		
Ethyl tert-butyl alcohol (µg/l)	N/A	N/A	N/A	< 20		
Ethyl tert-butyl ether (µg/l)	N/A	N/A	N/A	< 1.0		
Tert-Amyl alcohol (µg/l)	N/A	N/A	N/A	< 20		
Tert-Amyl methyl ether (µg/l)	N/A	N/A	N/A	< 1.0		
Tert-Butyl alcohol (µg/l)	N/A	N/A	N/A	< 20		
Tert-Butyl formate (µg/l)	N/A	N/A	N/A	< 5.0		
Dissolved Oxygen (mg/l)	4.1	N/A	N/A	N/A		
Sample Date	06/23/05	12/23/05	03/04/08	12/09/08		

N/A – Not Analyzed

TABLE 2
GROUNDWATER ANALYTICAL DATA SUMMARY (continued)

Chemical of Concern (units)	MW18	MW18	MW18	MW18		
Benzene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
Ethylbenzene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
MTBE (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
Naphthalene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
Toluene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
Total Xylenes (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0		
EDB (µg/l)	< 0.019	N/A	N/A	N/A		
Nitrate (mg/l)	N/A	N/A	N/A	N/A		
Sulfate (mg/l)	N/A	N/A	N/A	N/A		
Ferrous iron (mg/l)	N/A	N/A	N/A	N/A		
Lead (mg/l)	< 0.003	< 0.003	N/A	N/A		
Methane (µg/l)	N/A	N/A	N/A	N/A		
Diisopropyl ether (µg/l)	N/A	N/A	N/A	< 1.0		
Ethanol (µg/l)	N/A	N/A	N/A	< 100		
Ethyl tert-butyl alcohol (µg/l)	N/A	N/A	N/A	< 20		
Ethyl tert-butyl ether (µg/l)	N/A	N/A	N/A	< 1.0		
Tert-Amyl alcohol (µg/l)	N/A	N/A	N/A	< 20		
Tert-Amyl methyl ether (µg/l)	N/A	N/A	N/A	< 1.0		
Tert-Butyl alcohol (µg/l)	N/A	N/A	N/A	< 20		
Tert-Butyl formate (µg/l)	N/A	N/A	N/A	< 5.0		
Dissolved Oxygen (mg/l)	4.3	N/A	N/A	N/A		
Sample Date	06/21/05	01/05/06	03/05/08	12/10/08		

N/A – Not Analyzed

TABLE 2
GROUNDWATER ANALYTICAL DATA SUMMARY (continued)

Chemical of Concern (units)	MW19	MW19	MW19	MW19	
Benzene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	
Ethylbenzene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	
MTBE (µg/l)	87	5.8	5.7	< 5.0	
Naphthalene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	
Toluene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	
Total Xylenes (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	
EDB (µg/l)	< 0.02	N/A	N/A	N/A	
Nitrate (mg/l)	N/A	N/A	N/A	N/A	
Sulfate (mg/l)	N/A	N/A	N/A	N/A	
Ferrous iron (mg/l)	N/A	N/A	N/A	N/A	
Lead (mg/l)	0.16	0.053	N/A	N/A	
Methane (µg/l)	N/A	N/A	N/A	N/A	
Diisopropyl ether (µg/l)	N/A	N/A	N/A	< 1.0	
Ethanol (µg/l)	N/A	N/A	N/A	< 100	
Ethyl tert-butyl alcohol (µg/l)	N/A	N/A	N/A	< 20	
Ethyl tert-butyl ether (µg/l)	N/A	N/A	N/A	< 1.0	
Tert-Amyl alcohol (µg/l)	N/A	N/A	N/A	< 20	
Tert-Amyl methyl ether (µg/l)	N/A	N/A	N/A	< 1.0	
Tert-Butyl alcohol (µg/l)	N/A	N/A	N/A	< 20	
Tert-Butyl formate (µg/l)	N/A	N/A	N/A	< 5.0	
Dissolved Oxygen (mg/l)	4.3	4.0	4.2	4.4	
Sample Date	06/23/05	01/09/06	03/06/08	12/09/08	

N/A – Not Analyzed

TABLE 2
GROUNDWATER ANALYTICAL DATA SUMMARY (continued)

Chemical of Concern (units)	MW20	MW20	MW20	MW21	MW21	MW21
Benzene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene (µg/l)	< 5.0	< 5.0	< 5.0	17	< 5.0	< 5.0
MTBE (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Naphthalene (µg/l)	< 5.0	< 5.0	< 5.0	20	< 5.0	< 5.0
Toluene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Xylenes (µg/l)	< 5.0	< 5.0	< 5.0	24	< 5.0	< 5.0
EDB (µg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate (mg/l)	N/A	N/A	N/A	0.38	N/A	N/A
Sulfate (mg/l)	N/A	N/A	N/A	10	N/A	N/A
Ferrous iron (mg/l)	N/A	N/A	N/A	110	N/A	N/A
Lead (mg/l)	0.0066	N/A	N/A	0.29	N/A	N/A
Methane (µg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Diisopropyl ether (µg/l)	N/A	N/A	< 1.0	N/A	N/A	< 1.0
Ethanol (µg/l)	N/A	N/A	< 100	N/A	N/A	< 100
Ethyl tert-butyl alcohol (µg/l)	N/A	N/A	< 20	N/A	N/A	< 20
Ethyl tert-butyl ether (µg/l)	N/A	N/A	< 1.0	N/A	N/A	< 1.0
Tert-Amyl alcohol (µg/l)	N/A	N/A	< 20	N/A	N/A	< 20
Tert-Amyl methyl ether (µg/l)	N/A	N/A	< 1.0	N/A	N/A	< 1.0
Tert-Butyl alcohol (µg/l)	N/A	N/A	< 20	N/A	N/A	< 20
Tert-Butyl formate (µg/l)	N/A	N/A	< 5.0	N/A	N/A	< 5.0
Dissolved Oxygen (mg/l)	3.4	N/A	N/A	3.1	N/A	N/A
Sample Date	01/06/06	03/05/08	12/09/08	01/06/06	03/05/08	12/09/08

N/A – Not Analyzed

TABLE 2
GROUNDWATER ANALYTICAL DATA SUMMARY (continued)

Chemical of Concern (units)	MW22	MW22	MW22	MW23	MW23	MW23
Benzene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (µg/l)	6.4	< 5.0	< 5.0	18	17	17
Naphthalene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Xylenes (µg/l)	< 5.0	< 5.0	< 5.0	9.7	< 5.0	< 5.0
EDB (µg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate (mg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Sulfate (mg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Ferrous iron (mg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Lead (mg/l)	< 0.003	N/A	N/A	0.016	N/A	N/A
Methane (µg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Diisopropyl ether (µg/l)	N/A	N/A	< 1.0	N/A	N/A	< 1.0
Ethanol (µg/l)	N/A	N/A	< 100	N/A	N/A	< 100
Ethyl tert-butyl alcohol (µg/l)	N/A	N/A	< 20	N/A	N/A	< 20
Ethyl tert-butyl ether (µg/l)	N/A	N/A	< 1.0	N/A	N/A	< 1.0
Tert-Amyl alcohol (µg/l)	N/A	N/A	< 20	N/A	N/A	< 20
Tert-Amyl methyl ether (µg/l)	N/A	N/A	< 1.0	N/A	N/A	< 1.0
Tert-Butyl alcohol (µg/l)	N/A	N/A	< 20	N/A	N/A	< 20
Tert-Butyl formate (µg/l)	N/A	N/A	< 5.0	N/A	N/A	< 5.0
Dissolved Oxygen (mg/l)	3.8	N/A	N/A	3.2	N/A	N/A
Sample Date	01/06/06	03/05/08	12/09/08	01/05/06	03/05/08	12/10/08

N/A – Not Analyzed

TABLE 2
GROUNDWATER ANALYTICAL DATA SUMMARY (continued)

Chemical of Concern (units)	MW24	MW24	MW24	MW25	MW25	MW25
Benzene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Naphthalene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Xylenes (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
EDB (µg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate (mg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Sulfate (mg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Ferrous iron (mg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Lead (mg/l)	0.024	N/A	N/A	0.030	N/A	N/A
Methane (µg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Diisopropyl ether (µg/l)	N/A	N/A	< 1.0	N/A	N/A	< 1.0
Ethanol (µg/l)	N/A	N/A	< 100	N/A	N/A	< 100
Ethyl tert-butyl alcohol (µg/l)	N/A	N/A	< 20	N/A	N/A	< 20
Ethyl tert-butyl ether (µg/l)	N/A	N/A	< 1.0	N/A	N/A	< 1.0
Tert-Amyl alcohol (µg/l)	N/A	N/A	< 20	N/A	N/A	< 20
Tert-Amyl methyl ether (µg/l)	N/A	N/A	< 1.0	N/A	N/A	< 1.0
Tert-Butyl alcohol (µg/l)	N/A	N/A	< 20	N/A	N/A	< 20
Tert-Butyl formate (µg/l)	N/A	N/A	< 5.0	N/A	N/A	< 5.0
Dissolved Oxygen (mg/l)	2.7	N/A	3.1	3.7	N/A	N/A
Sample Date	01/05/06	03/05/08	12/09/08	01/09/06	03/06/08	12/09/08

N/A – Not Analyzed

TABLE 2
GROUNDWATER ANALYTICAL DATA SUMMARY (continued)

Chemical of Concern (units)	MW26	MW26	MW26	MW27	MW27	MW27
Benzene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Naphthalene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Xylenes (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
EDB (µg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate (mg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Sulfate (mg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Ferrous iron (mg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Lead (mg/l)	0.065	N/A	N/A	0.28	N/A	N/A
Methane (µg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Diisopropyl ether (µg/l)	N/A	N/A	< 1.0	N/A	N/A	< 1.0
Ethanol (µg/l)	N/A	N/A	< 100	N/A	N/A	< 100
Ethyl tert-butyl alcohol (µg/l)	N/A	N/A	< 20	N/A	N/A	< 20
Ethyl tert-butyl ether (µg/l)	N/A	N/A	< 1.0	N/A	N/A	< 1.0
Tert-Amyl alcohol (µg/l)	N/A	N/A	< 20	N/A	N/A	< 20
Tert-Amyl methyl ether (µg/l)	N/A	N/A	< 1.0	N/A	N/A	< 1.0
Tert-Butyl alcohol (µg/l)	N/A	N/A	< 20	N/A	N/A	< 20
Tert-Butyl formate (µg/l)	N/A	N/A	< 5.0	N/A	N/A	< 5.0
Dissolved Oxygen (mg/l)	3.3	3.5	3.7	3.7	3.9	N/A
Sample Date	01/06/06	03/05/08	12/09/08	01/06/06	03/05/08	12/09/08

N/A – Not Analyzed

TABLE 2
GROUNDWATER ANALYTICAL DATA SUMMARY (continued)

Chemical of Concern (units)	MW28	MW28	MW28	MW29	MW29	MW29
Benzene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Naphthalene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Xylenes (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
EDB (µg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate (mg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Sulfate (mg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Ferrous iron (mg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Lead (mg/l)	< 0.003	N/A	N/A	0.012	N/A	N/A
Methane (µg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Diisopropyl ether (µg/l)	N/A	N/A	< 1.0	N/A	N/A	< 1.0
Ethanol (µg/l)	N/A	N/A	< 100	N/A	N/A	< 100
Ethyl tert-butyl alcohol (µg/l)	N/A	N/A	< 20	N/A	N/A	< 20
Ethyl tert-butyl ether (µg/l)	N/A	N/A	< 1.0	N/A	N/A	< 1.0
Tert-Amyl alcohol (µg/l)	N/A	N/A	< 20	N/A	N/A	< 20
Tert-Amyl methyl ether (µg/l)	N/A	N/A	< 1.0	N/A	N/A	< 1.0
Tert-Butyl alcohol (µg/l)	N/A	N/A	< 20	N/A	N/A	< 20
Tert-Butyl formate (µg/l)	N/A	N/A	< 5.0	N/A	N/A	< 5.0
Dissolved Oxygen (mg/l)	4.2	4.4	4.5	3.8	4.1	4.3
Sample Date	01/09/06	03/06/08	12/09/08	01/09/06	03/06/08	12/09/08

N/A – Not Analyzed

TABLE 2
GROUNDWATER ANALYTICAL DATA SUMMARY (continued)

Chemical of Concern (units)	MW30	MW30	MW30	MW31	MW31	MW31
Benzene (µg/l)	< 5.0	< 100	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene (µg/l)	< 5.0	1,200	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (µg/l)	42	130	110	1,000	28	< 5.0
Naphthalene (µg/l)	< 5.0	680	< 5.0	< 5.0	< 5.0	< 5.0
Toluene (µg/l)	< 5.0	2,000	< 5.0	< 5.0	< 5.0	< 5.0
Total Xylenes (µg/l)	< 5.0	6,000	< 5.0	< 5.0	< 5.0	< 5.0
EDB (µg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate (mg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Sulfate (mg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Ferrous iron (mg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Lead (mg/l)	< 0.003	N/A	N/A	< 0.003	N/A	N/A
Methane (µg/l)	N/A	N/A	N/A	N/A	N/A	N/A
Diisopropyl ether (µg/l)	N/A	N/A	< 1.0	N/A	N/A	1.4
Ethanol (µg/l)	N/A	N/A	< 100	N/A	N/A	< 100
Ethyl tert-butyl alcohol (µg/l)	N/A	N/A	< 20	N/A	N/A	< 20
Ethyl tert-butyl ether (µg/l)	N/A	N/A	< 1.0	N/A	N/A	< 1.0
Tert-Amyl alcohol (µg/l)	N/A	N/A	< 20	N/A	N/A	< 20
Tert-Amyl methyl ether (µg/l)	N/A	N/A	4.0	N/A	N/A	4.0
Tert-Butyl alcohol (µg/l)	N/A	N/A	< 20	N/A	N/A	< 20
Tert-Butyl formate (µg/l)	N/A	N/A	< 5.0	N/A	N/A	< 5.0
Dissolved Oxygen (mg/l)	4.3	4.5	4.6	4.1	4.3	4.4
Sample Date	01/06/06	03/06/08	12/10/08	01/09/06	03/04/08	12/10/08

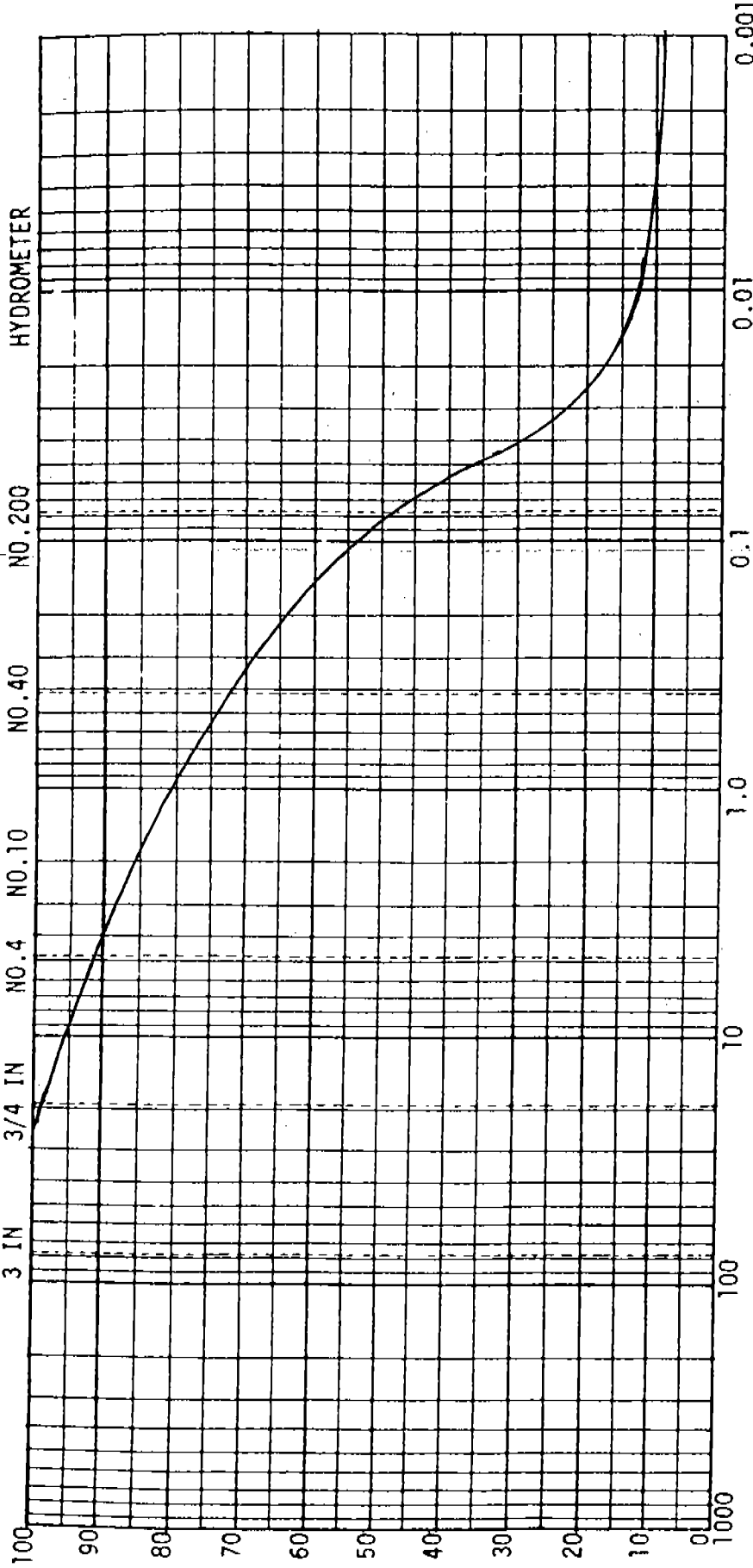
N/A – Not Analyzed

TABLE 2
GROUNDWATER ANALYTICAL DATA SUMMARY (continued)

Chemical of Concern (units)	MW32	MW32	MW32	Fox Pizza Well	Fox Pizza Well	
Benzene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Ethylbenzene (µg/l)	< 5.0	< 5.0	< 5.0	28	5.0	
MTBE (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Naphthalene (µg/l)	< 5.0	< 5.0	< 5.0	9.2	< 5.0	
Toluene (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Total Xylenes (µg/l)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
EDB (µg/l)	N/A	N/A	N/A	N/A	N/A	
Nitrate (mg/l)	N/A	N/A	N/A	N/A	N/A	
Sulfate (mg/l)	N/A	N/A	N/A	N/A	N/A	
Ferrous iron (mg/l)	N/A	N/A	N/A	N/A	N/A	
Lead (mg/l)	0.017	N/A	N/A	N/A	N/A	
Methane (µg/l)	N/A	N/A	N/A	N/A	N/A	
Diisopropyl ether (µg/l)	N/A	N/A	< 1.0	N/A	< 1.0	
Ethanol (µg/l)	N/A	N/A	< 100	N/A	< 100	
Ethyl tert-butyl alcohol (µg/l)	N/A	N/A	< 20	N/A	< 20	
Ethyl tert-butyl ether (µg/l)	N/A	N/A	< 1.0	N/A	< 1.0	
Tert-Amyl alcohol (µg/l)	N/A	N/A	< 20	N/A	< 20	
Tert-Amyl methyl ether (µg/l)	N/A	N/A	< 1.0	N/A	< 1.0	
Tert-Butyl alcohol (µg/l)	N/A	N/A	< 20	N/A	< 20	
Tert-Butyl formate (µg/l)	N/A	N/A	< 5.0	N/A	< 5.0	
Dissolved Oxygen (mg/l)	3.6	N/A	N/A	N/A	3.8	
Sample Date	01/06/06	03/05/08	12/09/08	03/05/08	12/10/08	

N/A – Not Analyzed

U. S. STANDARD SIEVE SIZE



COBBLES	GRAVEL		SAND			SILT OR CLAY	
	Coarse	Fine	Coarse	Medium	Fine		

GRAIN SIZE DISTRIBUTION

KLEEN SITES
PERRYS TEXACO
SB-07

SAMPLE	DEPTH	CLASSIFICATION	NAT	WC	LL	PL	PI
SB-07	9-11'	Brown Silty Clayey Fine to Coarse SAND					

Site: Perry's Texaco
Well: MW02

VALUES USED IN BOUWER AND RICE ANALYSIS OF SLUG TEST DATA

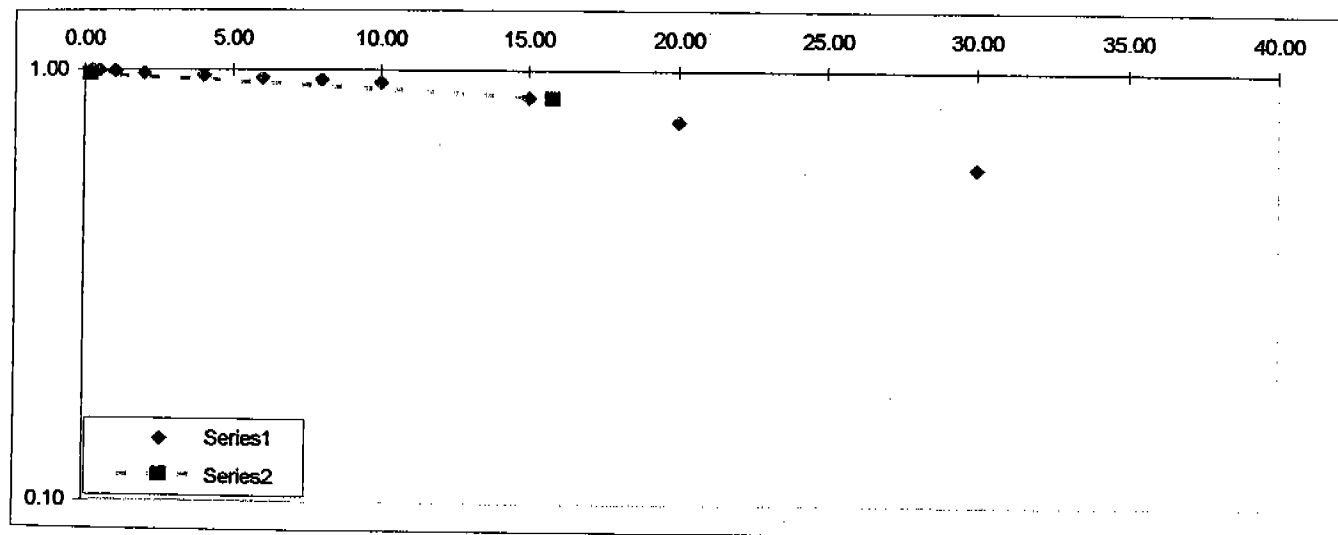
$l =$	15 screen length (ft)	$\ln(m-l/rw) =$	2.7090507
$d =$	12.37 depth of screen below water (ft)	$(l-d)/rw =$	7.8978979
$rw =$	0.333 well radius (ft)	$A =$	1.6028741
$rc =$	0.083 casing radius (ft)	$B =$	0.2468729
$m =$	20 formation thickness (ft)	$tL =$	123.10274
$H_i =$	488.25 static water level (ft above xdc)	$\ln(R/rw) =$	1.471911

$t_1 =$ 0.2 $(H_w/H_0)_1 =$ 0.9772372

$t_2 =$ 15.79 $(H_w/H_0)_2 =$ 0.8609938

ESTIMATED HYDRAULIC CONDUCTIVITY

$k =$ 1.57E-05 ft/min = 7.96E-06 cm/s = 7.96E-08 m/s



Slug Test Data

TOC of Well	Static Water Level	Ground Water Elevation	Elapsed Time (min)	Hw/Ho
497.88	19.80	478.08	0.25	1.0000
	19.77	478.11	0.50	0.9971
	19.72	478.16	1.00	0.9921
	19.62	478.26	2.00	0.9823
	19.48	478.40	4.00	0.9685
	19.35	478.53	6.00	0.9558
	19.25	478.63	8.00	0.9459
	19.14	478.74	10.00	0.9351
	18.43	479.45	15.00	0.8653
	17.38	480.50	20.00	0.7620
	15.70	482.18	30.00	0.5969

Site: Perry's Texaco
Well: MW03

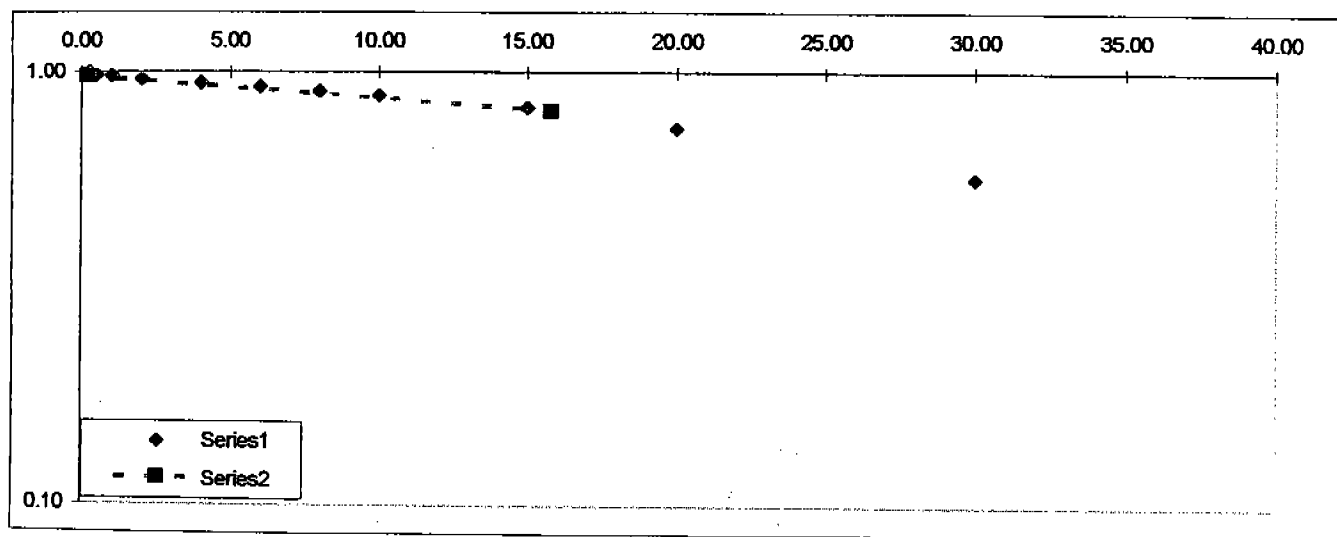
VALUES USED IN BOUWER AND RICE ANALYSIS OF SLUG TEST DATA

$l =$	15 screen length (ft)	$\ln(m-l/rw) =$	2.7090507
$d =$	11.65 depth of screen below water (ft)	$(l-d)/rw =$	10.06006
$rw =$	0.333 well radius (ft)	$A =$	1.6028741
$rc =$	0.083 casing radius (ft)	$B =$	0.2468729
$m =$	20 formation thickness (ft)	$tL =$	84.633137
$H_i =$	480.52 static water level (ft above xdcr)	$\ln(R/rw) =$	1.6793711

$t_1 =$	0.2 $(H_w/H_0)_1 =$	0.9772372
$t_2 =$	15.79 $(H_w/H_0)_2 =$	0.8128305

ESTIMATED HYDRAULIC CONDUCTIVITY

$k = 2.04E-05$ ft/min = $1.04E-05$ cm/s = $1.04E-07$ m/s



Slug Test Data

TOC of Well	Static Water Level	Ground Water Elevation	Elapsed Time (min)	Hw/Ho
492.87	21.97	470.90	0.25	1.0000
	21.80	471.07	0.50	0.9823
	21.77	471.10	1.00	0.9792
	21.63	471.24	2.00	0.9647
	21.43	471.44	4.00	0.9439
	21.24	471.63	6.00	0.9241
	21.05	471.82	8.00	0.9044
	20.83	472.04	10.00	0.8815
	20.30	472.57	15.00	0.8264
	19.50	473.37	20.00	0.7432
	17.81	475.06	30.00	0.5676

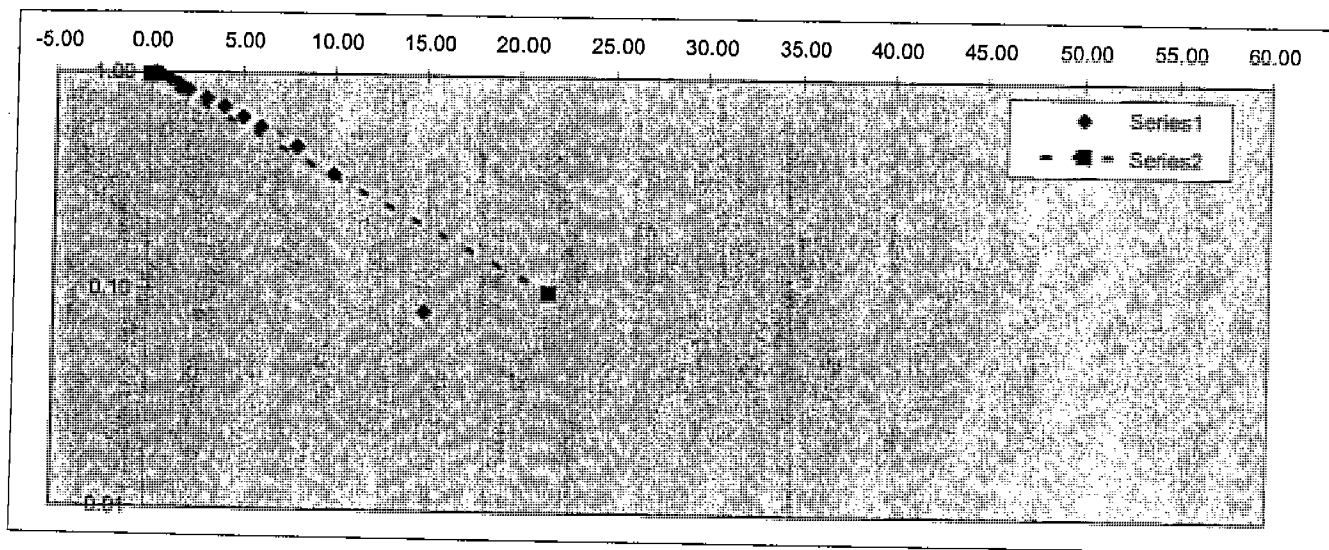
Site: Perry's North Main Texaco
Well: MW06

VALUES USED IN BOUWER AND RICE ANALYSIS OF SLUG TEST DATA

$l =$	15	screen length (ft)	$\ln(m-l/rw) =$	1.0996128
$d =$	8.7	depth of screen below water (ft)	$(l-d)/rw =$	18.918919
$rw =$	0.333	well radius (ft)	$A =$	1.6028741
$rc =$	0.083	casing radius (ft)	$B =$	0.2468729
$m =$	16	formation thickness (ft)	$tL =$	9.5500695
$H_i =$	479.63	static water level (ft above xdcr)	$\ln(R/rw) =$	2.2128376
$t_1 =$	-0.06	$(H_w/H_0)_1 =$	0.9772372	
$t_2 =$	21.6	$(H_w/H_0)_2 =$	0.1011579	

ESTIMATED HYDRAULIC CONDUCTIVITY

$k = 1.27E-04$ ft/min = $6.44E-05$ cm/s = $6.44E-07$ m/s



Slug Test Data

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TOC of Well	Static Water Level	Ground Water Elevation	Elapsed Time (min)	Hw/Ho
488.93	16.99	471.94	0.25	1.0000
	16.85	472.08	0.50	0.9818
	16.49	472.44	1.00	0.9350
	16.13	472.80	1.50	0.8882
	15.71	473.22	2.00	0.8336
	15.15	473.78	3.00	0.7607
	14.69	474.24	4.00	0.7009
	14.14	474.79	5.00	0.6294
	13.65	475.28	6.00	0.5657
	12.85	476.08	8.00	0.4616
	11.96	476.97	10.00	0.3459
	9.93	479.00	15.00	0.0819

Site: Perry's North Main Texaco
Well: MW08

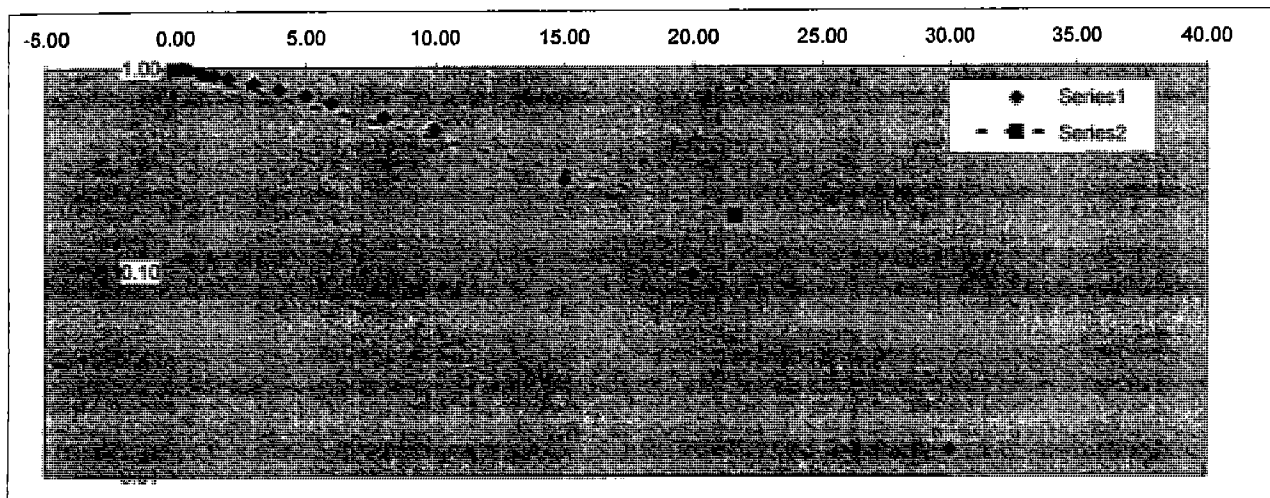
VALUES USED IN BOUWER AND RICE ANALYSIS OF SLUG TEST DATA

l=	screen length (ft)	$\ln(m-l/rw)=$	2.7090507
d=	depth of screen below water (ft)	$(l-d)/rw=$	6.6066066
rw=	well radius (ft)	A=	1.6028741
rc=	casing radius (ft)	B=	0.2468729
m=	formation thickness (ft)	tL=	13.010814
Hi=	static water level (ft above xdcr)	$\ln(R/rw)=$	1.2655941

t1=	-0.06 (Hw/H0)1=	0.9772372
t2=	21.6 (Hw/H0)2=	0.1849269

ESTIMATED HYDRAULIC CONDUCTIVITY

k= 1.52E-04 ft/min = 7.74E-05 cm/s = 7.74E-07 m/s



Slug Test Data

TOC of Well	Static Water Level	Ground Water Elevation	Elapsed Time (min)	Hw/Ho
483.00	13.90	469.10	0.25	1.0000
	13.71	469.29	0.50	0.9804
	13.32	469.68	1.00	0.9402
	13.06	469.94	1.50	0.9134
	12.79	470.21	2.00	0.8856
	12.30	470.70	3.00	0.8351
	11.74	471.26	4.00	0.7773
	11.25	471.75	5.00	0.7268
	10.70	472.30	6.00	0.6701
	9.68	473.32	8.00	0.5649
	8.98	474.02	10.00	0.4928
	6.90	476.10	15.00	0.2784
	5.13	477.87	20.00	0.0959
	4.33	478.67	30.00	0.0134

Bail Down Test Data
Perry's North Main Texaco
Lancaster, SC
June 24, 2005

Well MW05

Time Elapsed (min.)	Free Product Thickness		
	*Depth to Static Water (ft.)	*Depth to Product (ft.)	Product Thickness (ft.)
0.5	8.04	-	0.00
1.0	8.04	-	0.00
1.5	8.05	8.04	0.01
2.0	8.06	8.04	0.02
3.0	8.08	8.04	0.04
4.0	8.09	8.03	0.06
6.0	8.10	8.02	0.08
8.0	8.10	8.01	0.09
10.0	8.11	7.99	0.12
15.0	8.13	7.98	0.15
20.0	8.14	7.97	0.17
30.0	8.15	7.97	0.18

* Measured from top of the well casing

- I. Maximum Recovered Free Product Thickness $0.18 - 0.00 = 0.18$ feet
- II. $80\% \times 0.18$ feet = 0.14 feet
Time corresponding to 80% recovery = 0.14 feet
Time for 80% recovery is approximately 15 minutes
- III. Gallons / foot of product thickness in well screen
 $\pi \times (\text{well radius in feet})^2 \times 7.48$ gallons / ft³
 $3.14 \times (1/12 \text{ ft.})^2 \times 7.48$ gallons / ft³ = 0.16 gallon / ft.
- IV. Average Recovery Rate
 0.16 gallons / foot $\times 0.14$ feet / 15 minutes = 0.0015 gallons / minute
 0.0015 gal. / min. $\times 60$ min. / hour $\times 24$ hours / day = **2.16 gallons / day**

3.7 Aquifer Characterization

3.7.1 Rising Head Test

Aquifer characterization was conducted during the Tier II assessment. Two rising head tests were performed on shallow Wells MW06 and MW08. Characterization of the shallow aquifer during the Tier II assessment yielded the following:

Hydraulic Conductivity: 0.20 feet / day
Hydraulic Gradient: 0.03 feet / feet
Porosity: 20%
Estimated Seepage Velocity: 10.95 ft / yr.

Aquifer characterization data is provided in Appendix D of this report.

3.7.2 Free Product Recovery Rate Test

A bail down test was performed on Well MW05 during the Tier II assessment on June 24, 2005. A free product thickness of 0.20 feet was measured in Well MW05. An oil-water interface probe was used to determine the free product thickness. The bail down test involved manually removing free product from the well using a disposable bailer and measuring the thickness of and depth to free product in the well as it recovers. This test is most useful in estimating initial recovery rates for a skimming type operation. In order for the results of a bail down test to be applicable, the free product recharge rate should be slow relative to the rate of ground water recharge. The following procedure was used to calculate the average free product recovery rate:

1. Maximum free product thickness.
2. 80% x maximum thickness recovery.
3. Determine time corresponding to 80% of the free product recovery (min.).
4. Compute gallons per foot of free product thickness in well screen.
 $\pi \times (\text{well radius in ft})^2 \times 7.48 \text{ gal/ft}^3 = \text{gal/ft}$
5. Compute average recovery rate to 80% recovery.
 $\text{gal / ft of free product thickness in well screen} \times 80\% \text{ max. recovery / time corresponding to 80\% recovery} = \text{gal / min}$

Bail down test calculations are provided in Appendix E.

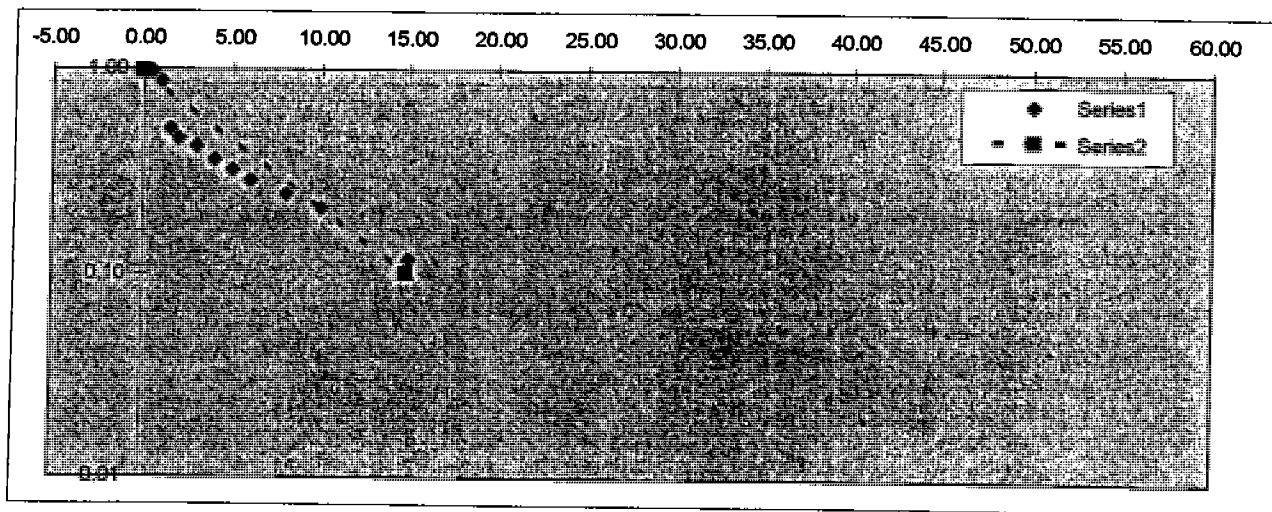
Site: Perry's North Main Texaco
Well: MW27

VALUES USED IN BOUWER AND RICE ANALYSIS OF SLUG TEST DATA

l=	10	screen length (ft)	$\ln(m-l/rw)=$	3.4021979
d=	1.5	depth of screen below water (ft)	$(l-d)/rw=$	-4.6546547
rw=	0.875	well radius (ft)	A=	1.6028741
rc=	0.055	casing radius (ft)	B=	0.2468729
m=	20	formation thickness (ft)	tL=	6.5518944
Hi=	5.44	static water level (ft above xdcr)	$\ln(R/rw)=$	-2.9475383
t1=	-0.06	(Hw/H0)1=	0.9772372	
t2=	14.8	(Hw/H0)2=	0.1011579	

ESTIMATED HYDRAULIC CONDUCTIVITY

k= 1.00E-03 ft/min = 5.08E-04 cm/s = 5.08E-06 m/s



Slug Test Data

TOC of Well	Static Water Level	Ground Water Elevation	Elapsed Time (min)	Hw/Ho
457.56	6.58	450.98	0.25	1.0000
	6.49	451.07	0.50	0.9740
	6.14	451.42	1.00	0.8728
	4.90	452.66	1.50	0.5145
	4.72	452.84	2.00	0.4624
	4.58	452.98	3.00	0.4220
	4.38	453.18	4.00	0.3642
	4.24	453.32	5.00	0.3237
	4.12	453.44	6.00	0.2890
	3.98	453.58	8.00	0.2486
	3.85	453.71	10.00	0.2110
	3.53	454.03	15.00	0.1185

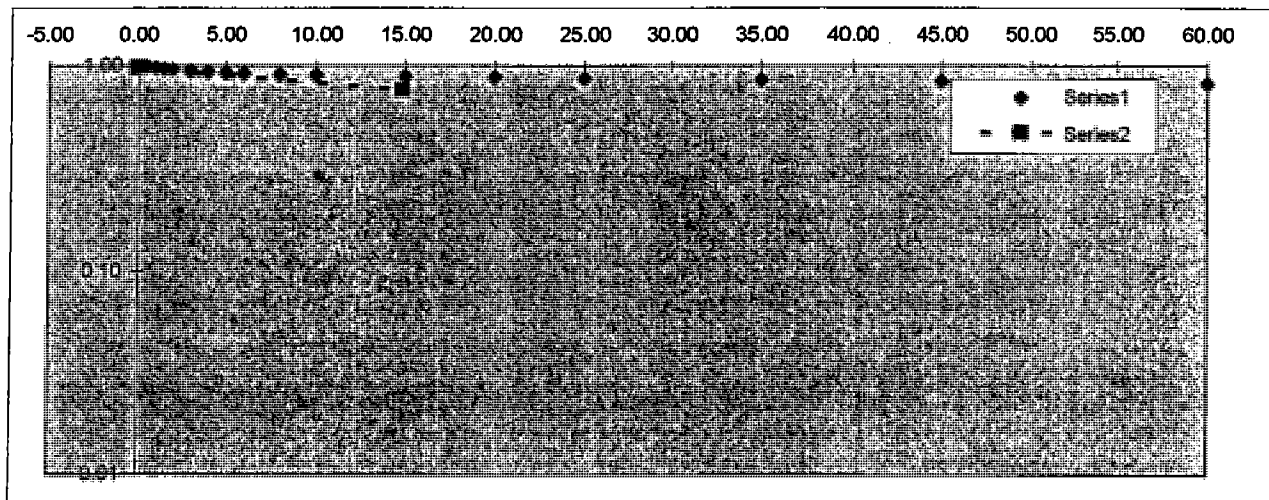
Site: Perry's North Main Texaco
Well: MW32

VALUES USED IN BOUWER AND RICE ANALYSIS OF SLUG TEST DATA

l=	25	screen length (ft)	$\ln(m-l/rw)=$	2.7090507
d=	10.75	depth of screen below water (ft)	$(l-d)/rw=$	12.762763
rw=	0.335	well radius (ft)	A=	1.6028741
rc=	0.053	casing radius (ft)	B=	0.2468729
m=	20	formation thickness (ft)	tL=	59.755704
Hi=	488.81	static water level (ft above xdc)	$\ln(R/rw)=$	1.8848708
t1=	-0.06	$(Hw/H0)1=$	0.9772372	
t2=	14.8	$(Hw/H0)2=$	0.762079	

ESTIMATED HYDRAULIC CONDUCTIVITY

k= 2.56E-05 ft/min = 1.30E-05 cm/s = 1.3E-07 m/s



Slug Test Data

TOC of Well	Static Water Level	Ground Water Elevation	Elapsed Time (min)	Hw/Ho
503.71	24.26	479.45	0.25	1.0000
	24.18	479.53	0.50	0.9915
	24.04	479.67	1.00	0.9765
	23.95	479.76	1.50	0.9669
	23.86	479.85	2.00	0.9573
	23.71	480.00	3.00	0.9412
	23.61	480.10	4.00	0.9306
	23.56	480.15	5.00	0.9252
	23.49	480.22	6.00	0.9177
	23.38	480.33	8.00	0.9060
	23.30	480.41	10.00	0.8974
	23.17	480.54	15.00	0.8835
	23.09	480.62	20.00	0.8750
	22.98	480.73	25.00	0.8632
	22.87	480.84	35.00	0.8515
	22.78	480.93	45.00	0.8419
	22.62	481.09	60.00	0.8248

TABLE 1
AFVR MONITORING DATA
PERRY'S NORTH MAIN TEXACO
LANCASTER, SOUTH CAROLINA
SCDHEC SITE ID NUMBER 05576

Start Weather: Sunny, 75 degrees F
 Finish Weather: Cloudy, 82 degrees F

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Vacuum Truck Exhaust		Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
					Concentration (PPM)					
MW05	9/19/2008	8:00	0.00	25.0	10,000		2500	31.25	3.75	0.00
		8:30	0.50	23.0	10,000		2400	30.00	3.60	1.80
		9:00	0.50	22.0	10,000		2400	30.00	3.60	1.80
		9:30	0.50	22.0	10,000		2200	27.50	3.30	1.65
		10:00	0.50	22.0	9,240		2200	27.50	3.05	1.52
		10:30	0.50	22.0	8,300		2200	27.50	2.74	1.37
		11:00	0.50	23.0	7,500		2300	28.75	2.59	1.29
		11:30	0.50	23.0	5,800		2200	27.50	1.91	0.96
Changed to MW04		12:00	0.50	24.0	10,000		2300	28.75	3.45	1.73
		12:30	0.50	24.0	10,000		2200	27.50	3.30	1.65
		13:00	0.50	21.0	8,190		2200	27.50	2.70	1.35
		13:30	0.50	21.0	7,210		2200	27.50	2.38	1.19
		14:00	0.50	22.0	6,500		2200	27.50	2.15	1.07
		14:30	0.50	22.0	5,980		2200	27.50	1.98	0.99
		15:00	0.50	21.0	5,000		2200	27.50	1.65	0.83
		15:30	0.50	22.0	4,400		2200	27.50	1.45	0.73
		16:00	0.50	22.0	4,100		2200	27.50	1.35	0.68
										TOTAL
										20.60

Well Gauging Data:									
Well No.	Diameter (in)	Total Depth (ft)	Before AFVR Event			After AFVR Event			
			Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW04	2"	19	no product	9.63	0.00	No Product	17.71	0.00	
MW05	2"	19	Stinger Depth	10.32	0.83	No Product	17.76	0.00	
AFVR Information									
Subcontractor:	Kleen Sites Geoservices								Pounds
Equipment Operator:	Bill Dunnagan	MW04	18		Hydrocarbons Removed (vapor):		20.60		Gallons
Stack I.D. (feet)	0.126 feet	MW05	18		Hydrocarbons Removed (liquid):		sheen		
					Total Hydrocarbons Removed (Vapor):		3.34		Equivalent Gallons
					Molecular Weight Utilized:		75		g / mole
					Disposal Facility:				Grandall Corporation
					Total Liquids Removed:		75		Gallons

TABLE 2
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
PERRY'S NORTH MAIN TEXACO
LANCASTER, SOUTH CAROLINA
SCDHEC SITE ID NUMBER 05576

Date: 09/19/08

Weather: Cloudy, 82 degrees F

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW06	MW15	MW03
		MW05	MW05	MW05
Nearest Extraction Well:		45 feet	65 feet	40 feet
Approximate Distance:				
Time	Elapsed Time	Differential Pressure Readings (inches of water)		
8:00	0.0	0	0	0
8:30	0.5			
9:00	1.0	0	0	0
9:30	1.5			
10:00	2.0	0	0	0
10:30	2.5			
11:00	3.0	0	0	0
11:30	3.5			
12:00	4.0	0	0	0
12:30	4.5			
13:00	5.0	0	0	0
13:30	5.5			
14:00	6.0	0	0	0
14:30	6.5			
15:00	7.0	0	0	0
15:30	7.5			
16:00	8.0	0	0	0
Maximum Change:		0	0	0

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW06	MW15	MW03
		MW05	MW05	MW05
Nearest Extraction Well:		45 feet	65 feet	40 feet
Approximate Distance:				
Time	Elapsed Time	Depth to Liquid (feet below of casing):		
Prior to AFVR		8.16	7.04	10.06
12:00	4 hours	8.16	7.05	10.06
16:00	8 hours	8.16	7.05	10.06
Maximum Change:		0.00	-0.01	0.00

TABLE 1
AFVR MONITORING DATA
PERRY'S NORTH MAIN TEXACO
LANCASTER, SOUTH CAROLINA
SCDHEC SITE ID NUMBER 05576

Start Weather: Sunny, 40 degrees F
 Finish Weather: Sunny, 60 degrees F

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Vacuum Truck Exhaust Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW05	10/29/2008	8:00	0.00	24.0	10,000	2300	28.75	3.45	0.00
		8:30	0.50	22.0	10,000	2400	30.00	3.60	1.80
		9:00	0.50	22.0	10,000	2200	27.50	3.30	1.65
		9:30	0.50	22.0	10,000	2200	27.50	3.30	1.65
		10:00	0.50	22.0	8,950	2300	28.75	3.09	1.54
		10:30	0.50	22.0	7,710	2200	27.50	2.54	1.27
		11:00	0.50	21.0	7,240	2200	27.50	2.39	1.19
		11:30	0.50	21.0	6,400	2200	27.50	2.11	1.06
Changed to MW04		12:00	0.50	24.0	10,000	2400	30.00	3.60	1.80
		12:30	0.50	24.0	10,000	2300	28.75	3.45	1.73
		13:00	0.50	21.0	8,460	2200	27.50	2.79	1.40
		13:30	0.50	21.0	7,900	2200	27.50	2.61	1.30
		14:00	0.50	22.0	7,190	2200	27.50	2.37	1.19
		14:30	0.50	22.0	6,300	2100	26.25	1.98	0.99
		15:00	0.50	21.0	5,800	2100	26.25	1.83	0.91
		15:30	0.50	22.0	5,000	2200	27.50	1.65	0.83
		16:00	0.50	22.0	4,600	2200	27.50	1.52	0.76
									TOTAL 21.07

Well Gauging Data:				Before AFVR Event				After AFVR Event			
Well No.	Diameter (in)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Product Thickness (ft)	Product Thickness (ft)	Product Thickness (ft)
MW04	2"	19	no product	9.56	0.00	No Product	17.94	0.00			
MW05	2"	19	9.61	9.93	0.32	No Product	18.09	0.00			
AFVR Information				Recovery / Disposal Information							
Subcontractor:	Kleen Sites Geoservices			Hydrocarbons Removed (vapor):				21.07			
Equipment Operator:	Bill Dunnagan			Hydrocarbons Removed (liquid):				sheen			
Stack I.D. (feet)	0.126 feet			Total Hydrocarbons Removed (vapor):				3.42			
				Molecular Weight Utilized:				75			
				Disposal Facility:				Grandall Corporation			
				Total Liquids Removed:				75			

TABLE 2
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
PERRY'S NORTH MAIN TEXACO
LANCASTER, SOUTH CAROLINA
SCDHEC SITE ID NUMBER 05576

Date: 10/29/08

Weather: Sunny, 60 degrees F

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW06	MW15	MW03
		MW05	MW05	MW05
Nearest Extraction Well:		45 feet	65 feet	40 feet
Approximate Distance:				
Time	Elapsed Time	Differential Pressure Readings (inches of water)		
8:00	0.0	0	0	0
8:30	0.5			
9:00	1.0	0	0	0
9:30	1.5			
10:00	2.0	0	0	0
10:30	2.5			
11:00	3.0	0	0	0
11:30	3.5			
12:00	4.0	0	0	0
12:30	4.5			
13:00	5.0	0	0	0
13:30	5.5			
14:00	6.0	0	0	0
14:30	6.5			
15:00	7.0	0	0	0
15:30	7.5			
16:00	8.0	0	0	0
Maximum Change:		0	0	0

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW06	MW15	MW03
		MW05	MW05	MW05
Nearest Extraction Well:		45 feet	65 feet	40 feet
Approximate Distance:				
Time	Elapsed Time	Depth to Liquid (feet below of casing):		
Prior to AFVR		8.23	7.15	10.09
12:00	4 hours	8.24	7.15	10.10
16:00	8 hours	8.24	7.15	10.10
Maximum Change:		-0.01	0.00	-0.01